



ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[EPA-HQ-OAR-2018-0074; FRL-10000-80-OAR]

RIN 2060-AT86

National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline) Residual Risk and Technology Review

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The U.S. Environmental Protection Agency (EPA) is proposing amendments to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Organic Liquids Distribution (Non-Gasoline) (OLD) source category. The EPA is proposing amendments to the storage tank and equipment leak requirements as a result of the residual risk and technology review (RTR). The EPA is also proposing amendments to allow terminals the option to implement a fenceline monitoring program in lieu of the enhancements to the storage tank and equipment leak requirements; correct and clarify regulatory provisions related to emissions during periods of startup, shutdown, and malfunction (SSM); add requirements for electronic reporting of performance test results and reports, performance evaluation reports, compliance reports, and Notification of Compliance Status (NOCS) reports; add operational requirements for flares; and make other minor technical improvements. We estimate that these proposed amendments would reduce emissions of hazardous air pollutants (HAP) from this source category by 386 tons per year (tpy), which represents an approximate 16-percent reduction of HAP emissions from the source category.

DATES: *Comments.* Comments must be received on or before **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. Under the Paperwork Reduction Act (PRA), comments on the information collection provisions are best assured of consideration if the Office of Management and Budget (OMB) receives a copy of your comments on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

Public hearing. If anyone contacts us requesting a public hearing on or before **[INSERT DATE 5 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, we will hold a hearing. Additional information about the hearing, if requested, will be published in a subsequent **Federal Register** document and posted at <https://www.epa.gov/stationary-sources-air-pollution/organic-liquids-distribution-national-emission-standards-hazardous>. See **SUPPLEMENTARY INFORMATION** for information on requesting and registering for a public hearing.

ADDRESSES: You may send comments, identified by Docket ID No. EPA-HQ-OAR-2018-0074, by any of the following methods:

- Federal eRulemaking Portal: <https://www.regulations.gov/> (our preferred method).
Follow the online instructions for submitting comments.
- Email: a-and-r-docket@epa.gov. Include Docket ID No. EPA-HQ-OAR-2018-0074 in the subject line of the message.
- Fax: (202) 566-9744. Attention Docket ID No. EPA-HQ-OAR-2018-0074.
- Mail: U.S. Environmental Protection Agency, EPA Docket Center, Docket ID No. EPA-HQ-OAR-2018-0074, Mail Code 28221T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.

- Hand/Courier Delivery: EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, DC 20004. The Docket Center's hours of operation are 8:30 a.m. – 4:30 p.m., Monday – Friday (except federal holidays).

Instructions: All submissions received must include Docket ID No. EPA-HQ-OAR-2018-0074. Comments received may be posted without change to <https://www.regulations.gov/>, including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: For questions about this proposed action, contact Mr. Art Diem, Sector Policies and Programs Division (E143-01), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-1185; fax number: (919) 541-0516; and email address: *Diem.Art@epa.gov*. For specific information regarding the risk assessment, contact Mr. Ted Palma, Health and Environmental Impacts Division (C539-02), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5470; fax number: (919) 541-0840; and email address: *Palma.Ted@epa.gov*. For questions about monitoring and testing requirements, contact Ms. Gerri Garwood, Sector Policies and Programs Division (D243-05), Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-2406; fax number: (919) 541-4991; and email address: *Garwood.Gerri@epa.gov*. For information about the applicability of the NESHAP to a particular entity, contact Mr. John Cox, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, WJC South Building (Mail

Code 2227A), 1200 Pennsylvania Avenue, NW, Washington DC 20460; telephone number: (202) 564-1395; and email address: *Cox.John@epa.gov*.

SUPPLEMENTARY INFORMATION:

Public hearing. Please contact Ms. Virginia Hunt at (919) 541-0832 or by email at *Hunt.Virginia@epa.gov* to request a public hearing, to register to speak at the public hearing, or to inquire as to whether a public hearing will be held.

Docket. The EPA has established a docket for this action under Docket ID No. EPA-HQ-OAR-2018-0074. All documents in the docket are listed in Regulations.gov. Although listed, some information is not publicly available, *e.g.*, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available either electronically in Regulations.gov or in hard copy at the EPA Docket Center, Room 3334, WJC West Building, 1301 Constitution Avenue, NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

Instructions. Direct your comments to Docket ID No. EPA-HQ-OAR-2018-0074. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <https://www.regulations.gov/>, including any personal information provided, unless the comment includes information claimed to be CBI or other information whose disclosure is restricted by statute. Do not submit information that you

consider to be CBI or otherwise protected through <https://www.regulations.gov/> or email. This type of information should be submitted by mail as discussed below.

The EPA may publish any comment received to its public docket. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www.epa.gov/dockets/commenting-epa-dockets>.

The <https://www.regulations.gov/> website allows you to submit your comment anonymously, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through <https://www.regulations.gov/>, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any digital storage media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and be free of any defects or viruses. For additional information about the EPA's public docket, visit the EPA Docket Center homepage at <https://www.epa.gov/dockets>.

Submitting CBI. Do not submit information containing CBI to the EPA through <https://www.regulations.gov/> or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on any digital storage media that you mail to the EPA, mark the outside of the digital storage media as CBI and then identify electronically within the digital storage media the specific information that is claimed as CBI. In addition to one complete version of the comments that includes information claimed as CBI, you must submit a copy of the comments that does not contain the information claimed as CBI directly to the public docket through the procedures outlined in *Instructions* above. If you submit any digital storage media that does not contain CBI, mark the outside of the digital storage media clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and the EPA's electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 Code of Federal Regulations (CFR) part 2. Send or deliver information identified as CBI only to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Docket ID No. EPA-HQ-OAR-2018-0074.

Preamble acronyms and abbreviations. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

AEGL	acute exposure guideline level
AERMOD	air dispersion model used by the HEM-3 model
APCD	air pollution control device
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
ATSDR	Agency For Toxic Substances and Disease Registry
Btu/scf	British thermal units per standard cubic foot
CAA	Clean Air Act
CalEPA	California EPA

CBI	Confidential Business Information
CDX	Central Data Exchange
CEDRI	Compliance and Emissions Data Reporting Interface
CFR	Code of Federal Regulations
CMS	continuous monitoring system
EIA	Energy Information Administration
EPA	Environmental Protection Agency
ERPG	Emergency Response Planning Guideline
ERT	Electronic Reporting Tool
FTIR	Fourier transform infrared spectroscopy
GACT	generally available control technology
HAP	hazardous air pollutant(s)
HCl	hydrochloric acid
HEM-3	Human Exposure Model, Version 1.5.5
HF	hydrogen fluoride
HI	hazard index
HON	National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry, also known as the hazardous organic NESHAP
HQ	hazard quotient
ICR	Information Collection Request
IFR	internal floating roof
IRIS	Integrated Risk Information System
km	kilometer
LDAR	leak detection and repair
MACT	maximum achievable control technology
MIR	maximum individual risk
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NATA	National Air Toxics Assessment
NEI	National Emissions Inventory
NESHAP	national emission standards for hazardous air pollutants
NHVcz	net heating value in the combustion zone gas
NHVvg	net heating value of the flare vent gas
NOCS	Notification of Compliance Status
OAQPS	Office of Air Quality Planning and Standards
OLD	Organic Liquids Distribution (Non-Gasoline)
OMB	Office of Management and Budget

PB-HAP	hazardous air pollutants known to be persistent and bio-accumulative in the environment
PDF	portable document format
POM	polycyclic organic matter
ppm	parts per million
ppmv	parts per million by volume
PRA	Paperwork Reduction Act
PRD	pressure relief device
psia	pounds per square inch absolute
REL	reference exposure level
RfC	reference concentration
RfD	reference dose
RTR	residual risk and technology review
SAB	Science Advisory Board
SSM	startup, shutdown, and malfunction
TOSHI	target organ-specific hazard index
tpy	tons per year
TRIM.FaTE	Total Risk Integrated Methodology.Fate, Transport, and Ecological Exposure model
UF	uncertainty factor
UMRA	Unfunded Mandates Reform Act
URE	unit risk estimate
USGS	U.S. Geological Survey
UV-DOAS	ultraviolet differential optical absorption spectroscopy
VCS	voluntary consensus standard
VOC	volatile organic compound(s)

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I. General Information

A. Does this action apply to me?

Table 1 of this preamble lists the NESHAP and associated regulated industrial source category that is the subject of this proposal. Table 1 is not intended to be exhaustive, but rather provides a guide for readers regarding the entities that this proposed action is likely to affect. The proposed standards, once promulgated, will be directly applicable to the affected sources.

Federal, state, local, and tribal government entities would not be affected by this proposed action.

As defined in the *Initial List of Categories of Sources Under Section 112(c)(1) of the Clean Air Act Amendments of 1990* (see 57 FR 31576, July 16, 1992) and *Documentation for Developing the Initial Source Category List, Final Report* (see EPA-450/3-91-030, July, 1992), the OLD source category includes, but is not limited to, those activities associated with the storage and distribution of organic liquids other than gasoline, at sites which serve as distribution points from which organic liquids may be obtained for further use and processing.

The OLD source category involves the distribution of organic liquids into, out of, or within a source. The distribution activities include the storage of organic liquids in storage tanks not subject to other 40 CFR part 63 standards and transfers into or out of the tanks from or to cargo tanks, containers, and pipelines. The OLD NESHAP is codified at 40 CFR part 63, subpart EEEE. Organic liquids are any crude oils downstream of the first point of custody transfer and any non-crude oil liquid that contains at least 5 percent by weight of any combination of the 98 HAP listed in Table 1 of 40 CFR part 63 subpart EEEE. For the purposes of the OLD NESHAP, organic liquids do not include gasoline, kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oil and fuel oil, fuel that is consumed or dispensed on the plant site, hazardous waste, wastewater, ballast water, or any non-crude liquid with an annual average true vapor pressure less than 0.7 kilopascals (0.1 pound per square inch absolute (psia)). Emission sources controlled by the OLD NESHAP are storage tanks, transfer operations, transport vehicles while being loaded, and equipment leak components (valves, pumps, and sampling connections) that have the potential to leak.

The types of organic liquids and emission sources covered by the OLD NESHAP are frequently found at many types of facilities that are already subject to other NESHAP. If equipment is in organic liquids distribution service and is subject to another 40 CFR part 63

NESHAP, then that equipment is not subject to the corresponding requirements in the OLD NESHAP.

Table 1. NESHAP and Industrial Source Categories Affected By This Proposed Action

Source Category and NESHAP	North American Industry Classification System (NAICS) Code
Organic Liquids Distribution (Non-Gasoline)	3222, 3241, 3251, 3252, 3259, 3261, 3361, 3362, 3399, 4247, 4861, 4869, 4931, 5622

B. Where can I get a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this action is available on the Internet. Following signature by the EPA Administrator, the EPA will post a copy of this proposed action at <https://www.epa.gov/stationary-sources-air-pollution/organic-liquids-distribution-national-emission-standards-hazardous>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version of the proposal and key technical documents at this same website. Information on the overall RTR program is available at <https://www3.epa.gov/ttn/atw/rrisk/rtrpg.html>.

A redline version of the regulatory language that incorporates the proposed changes in this action is available in the docket for this action (Docket ID No. EPA-HQ-OAR-2018-0074).

II. Background

A. What is the statutory authority for this action?

The statutory authority for this action is provided by sections 112 and 301 of the Clean Air Act (CAA), as amended (42 U.S.C. 7401 *et seq.*). Section 112 of the CAA establishes a two-stage regulatory process to develop standards for emissions of HAP from stationary sources. Generally, the first stage involves establishing technology-based standards and the second stage involves evaluating those standards that are based on maximum achievable control technology (MACT) to determine whether additional standards are needed to address any remaining risk

associated with HAP emissions. This second stage is commonly referred to as the “residual risk review.” In addition to the residual risk review, the CAA also requires the EPA to review standards set under CAA section 112 every 8 years to determine if there are “developments in practices, processes, or control technologies” that may be appropriate to incorporate into the standards. This review is commonly referred to as the “technology review.” When the two reviews are combined into a single rulemaking, it is commonly referred to as the “risk and technology review.” The discussion that follows identifies the most relevant statutory sections and briefly explains the contours of the methodology used to implement these statutory requirements. A more comprehensive discussion appears in the document titled *CAA Section 112 Risk and Technology Reviews: Statutory Authority and Methodology*, in the docket for this action.

In the first stage of the CAA section 112 standard setting process, the EPA promulgates technology-based standards under CAA section 112(d) for categories of sources identified as emitting one or more of the HAP listed in CAA section 112(b). Sources of HAP emissions are either major sources or area sources, and CAA section 112 establishes different requirements for major source standards and area source standards. “Major sources” are those that emit or have the potential to emit 10 tpy or more of a single HAP or 25 tpy or more of any combination of HAP. All other sources are “area sources.” For major sources, CAA section 112(d)(2) provides that the technology-based NESHAP must reflect the maximum degree of emission reductions of HAP achievable (after considering cost, energy requirements, and non-air quality health and environmental impacts). These standards are commonly referred to as MACT standards. CAA section 112(d)(3) also establishes a minimum control level for MACT standards, known as the MACT “floor.” The EPA must also consider control options that are more stringent than the

floor. Standards more stringent than the floor are commonly referred to as beyond-the-floor standards. In certain instances, as provided in CAA section 112(h), the EPA may set work practice standards where it is not feasible to prescribe or enforce a numerical emission standard. For area sources, CAA section 112(d)(5) gives the EPA discretion to set standards based on generally available control technologies or management practices (GACT) standards in lieu of MACT standards.

The second stage in standard-setting focuses on identifying and addressing any remaining (*i.e.*, “residual”) risk according to CAA section 112(f). For source categories subject to MACT standards, section 112(f)(2) of the CAA requires the EPA to determine whether promulgation of additional standards is needed to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect. Section 112(d)(5) of the CAA provides that this residual risk review is not required for categories of area sources subject to GACT standards. Section 112(f)(2)(B) of the CAA further expressly preserves the EPA’s use of the two-step approach for developing standards to address any residual risk and the Agency’s interpretation of “ample margin of safety” developed in the *National Emissions Standards for Hazardous Air Pollutants: Benzene Emissions from Maleic Anhydride Plants, Ethylbenzene/Styrene Plants, Benzene Storage Vessels, Benzene Equipment Leaks, and Coke By-Product Recovery Plants* (Benzene NESHAP) (54 FR 38044, September 14, 1989). The EPA notified Congress in the Risk Report that the Agency intended to use the Benzene NESHAP approach in making CAA section 112(f) residual risk determinations (EPA-453/R-99-001, p. ES-11). The EPA subsequently adopted this approach in its residual risk determinations and the United States Court of Appeals for the District of Columbia Circuit (the Court) upheld the EPA’s interpretation

that CAA section 112(f)(2) incorporates the approach established in the Benzene NESHAP. See *Natural Resources Defense Council v. EPA*, 529 F.3d 1077, 1083 (D.C. Cir. 2008).

The approach incorporated into the CAA and used by the EPA to evaluate residual risk and to develop standards under CAA section 112(f)(2) is a two-step approach. In the first step, the EPA determines whether risks are acceptable. This determination “considers all health information, including risk estimation uncertainty, and includes a presumptive limit on maximum individual lifetime [cancer] risk (MIR)¹ of approximately 1-in-10 thousand.” 54 FR 38045, September 14, 1989. If risks are unacceptable, the EPA must determine the emissions standards necessary to reduce risk to an acceptable level without considering costs. In the second step of the approach, the EPA considers whether the emissions standards provide an ample margin of safety to protect public health “in consideration of all health information, including the number of persons at risk levels higher than approximately 1-in-1 million, as well as other relevant factors, including costs and economic impacts, technological feasibility, and other factors relevant to each particular decision.” *Id.* The EPA must promulgate emission standards necessary to provide an ample margin of safety to protect public health or determine that the standards being reviewed provide an ample margin of safety without any revisions. After conducting the ample margin of safety analysis, we consider whether a more stringent standard is necessary to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect.

CAA section 112(d)(6) separately requires the EPA to review standards promulgated under CAA section 112 and revise them “as necessary (taking into account developments in

¹ Although defined as “maximum individual risk,” MIR refers only to cancer risk. MIR, one metric for assessing cancer risk, is the estimated risk if an individual were exposed to the maximum level of a pollutant for a lifetime.

practices, processes, and control technologies)” no less often than every 8 years. In conducting this review, which we call the “technology review,” the EPA is not required to recalculate the MACT floor. *Natural Resources Defense Council v. EPA*, 529 F.3d 1077, 1084 (D.C. Cir. 2008). *Association of Battery Recyclers, Inc. v. EPA*, 716 F.3d 667 (D.C. Cir. 2013). The EPA may consider cost in deciding whether to revise the standards pursuant to CAA section 112(d)(6).

B. What is this source category and how does the current NESHAP regulate its HAP emissions?

As defined in the *Initial List of Categories of Sources Under Section 112(c)(1) of the Clean Air Act Amendments of 1990* (see 57 FR 31576, July 16, 1992) and *Documentation for Developing the Initial Source Category List, Final Report* (see EPA-450/3-91-030, July, 1992), the OLD source category includes, but is not limited to, those activities associated with the storage and distribution of organic liquids other than gasoline, at sites that serve as distribution points from which organic liquids may be obtained for further use and processing.

The OLD source category involves the distribution of organic liquids into, out of, or within a source. The distribution activities include the storage of organic liquids in storage tanks not subject to other 40 CFR part 63 standards and transfers into or out of the tanks from or to cargo tanks, containers, and pipelines. Organic liquids are any crude oils downstream of the first point of custody transfer and any non-crude oil liquid that contains at least 5 percent by weight of any combination of the 98 HAP listed in Table 1 of 40 CFR part 63, subpart EEEE. For the purposes of the OLD NESHAP, organic liquids do not include gasoline, kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oil and fuel oil, fuel that is consumed or dispensed on the plant site, hazardous waste, wastewater, ballast water, or any non-crude liquid with an annual average true vapor pressure less than 0.7 kilopascals (0.1 psia). The OLD NESHAP applies only to major sources of HAP (*i.e.*, sources that have the potential to

emit 10 tpy of any single HAP or 25 tpy of combined HAP). Facilities subject to this NESHAP fall into two types, either (1) petrochemical terminals primarily in the business of storing and distributing organic liquids or (2) chemical production facilities or other manufacturing facilities that have either a distribution terminal not subject to another major source NESHAP or have a few miscellaneous storage tanks or transfer racks that are not otherwise subject to another major source NESHAP.

Equipment controlled by the OLD NESHAP are storage tanks, transfer operations, transport vehicles while being loaded, and equipment leak components (valves, pumps, and sampling connections) that have the potential to leak. Table 2 to subpart EEEE of part 63 contains the criteria for control of storage tanks and transfer racks. If a storage tank of a certain threshold capacity stores crude oil or a non-crude organic liquid having a threshold sum of partial pressures of HAP, then compliance options are either to (1) route emissions through a closed vent system to a control device that achieves a 95-percent control efficiency or (2) comply with work practice standards of 40 CFR part 63 subpart WW (*i.e.*, operate the tank with a compliant internal floating roof (IFR) or a compliant external floating roof), route emissions through a closed vent system to a fuel gas system of a process, or route emissions through a vapor balancing system that meets requirements specified in 40 CFR 63.2346(a)(4). Storage tanks storing non-crude organic liquids having a sum of partial pressures of HAP of at least 11.1 psia do not have the option to comply using an internal or external floating roof tank. Table 2 to subpart EEEE of part 63 contains the criteria for control of transfer racks, which are based on the facility-wide organic liquid loading volume for organic liquids having threshold HAP content expressed in percent HAP by weight of the organic liquid. For transfer racks required to control HAP emissions, the standards are either to (1) route emissions through a closed vent system to a

control device that achieves 98-percent control efficiency or (2) operate a compliant vapor balancing system. Transfer rack systems that fill containers of 55 gallons or greater are required to comply with specific provisions of 40 CFR part 63, subpart PP or operate a vapor balancing system.

The NESHAP requires leak detection and repair for certain equipment components associated with storage tanks and transfer racks subject to this subpart and for certain equipment components associated with pipelines between such storage tanks and transfer racks. The components are specified in the definition of “equipment leak components” at 40 CFR 63.2406 and include pumps, valves, and sampling connection systems in organic liquid service. The owner or operator is required to comply with the requirements for pumps, valves, and sampling connections in 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H. This requires the use of Method 21 of appendix A-7 to 40 CFR part 60 (“Method 21”) to determine the concentration of any detected leaks and to repair the component if the measured concentration exceeds the definition of a leak within the applicable subpart.

Pressure relief devices on vapor balancing systems are required to be monitored quarterly for leaks. An instrument reading of 500 parts per million (ppm) or greater defines a leak. Leaks must be repaired within 5 days.

The types of organic liquids and emission sources covered by the OLD NESHAP are frequently found at many types of facilities that are already subject to other NESHAP. If equipment is in organic liquids distribution service and is subject to another 40 CFR part 63 NESHAP, then that equipment is not subject to the corresponding requirements in the OLD NESHAP.

C. What data collection activities were conducted to support this action?

The EPA used several sources to develop the list of existing facilities subject to the OLD NESHAP. All facilities in the 2014 National Emissions Inventory (NEI) and the Toxics Release Inventory having a facility source type as petroleum storage facility or with a primary facility NAICS code beginning with 325, representing the chemical manufacturing sector, were queried to create a comprehensive base facility list. We supplemented this list with facility lists from the original OLD NESHAP rule, the Marine Vessel Loading NESHAP, a list of petrochemical storage facilities from the Internal Revenue Service, and from the Office of Enforcement and Compliance Assurance's Enforcement and Compliance History Online (ECHO) tool (<https://echo.epa.gov>). The EPA reviewed title V air permits to determine which facilities on the comprehensive list were subject to the OLD NESHAP. The current facility list consists of 177 facilities subject to the OLD NESHAP.

D. What other relevant background information and data are available?

We are relying on technical reports and memoranda that the EPA developed for flares used as air pollution control devices (APCDs) in the Petroleum Refinery Sector RTR and New Source Performance Standards rulemaking (80 FR 75178, December 1, 2015). These technical reports and memoranda can be found in the Petroleum Refinery Sector Docket for that action, Docket ID No. EPA-HQ-OAR-2010-0682. The Petroleum Refinery Sector Docket contains a number of flare-related technical reports and memoranda documenting numerous analyses the EPA conducted to develop the final suite of operational and monitoring requirements for refinery flares. We are incorporating this docket by reference in this rule. Even though we are incorporating the Petroleum Refinery Sector Docket by reference, for completeness of the rulemaking record for this action and for ease of reference in finding these items, we are including a list of specific technical support documents in Table 1 of the memorandum, *Control*

Option Impacts for Flares Located in the Organic Liquids Distribution (Non-Gasoline) Source Category, in this docket for this action.

Also related to the enhancements we are proposing for flares, we are citing the Flare Operational Requirements in the Vopak Terminal Deer Park consent decree, available at <https://www.epa.gov/enforcement/vopak-north-america-inc-clean-air-act-settlement-agreement> and included in the docket for this action.

We are also relying on background information about the fenceline monitoring program established for the Petroleum Refinery Sector rule, Docket ID No. EPA-HQ-OAR-2010-0682. We are incorporating this docket by reference in this rule. Even though we are incorporating the docket by reference, for completeness of the rulemaking record for this action and for ease of reference in finding these items, we are including the following document in the docket for this action memorandum, *Fenceline Monitoring Impact Estimates for Final Rule*.

Lastly, we are incorporating by reference into this action all the information associated with the development of the current OLD NESHAP standards at Docket ID No. EPA-HQ-OAR-2003-0138. This docket includes the materials from the legacy Docket ID No. A-98-13 associated with the development of the original OLD NESHAP.

III. Analytical Procedures and Decision Making

In this section, we describe the analyses performed to support the proposed decisions for the RTR and other issues addressed in this proposal.

A. How do we consider risk in our decision-making?

As discussed in section II.A of this preamble and in the Benzene NESHAP, in evaluating and developing standards under CAA section 112(f)(2), we apply a two-step approach to determine whether or not risks are acceptable and to determine if the standards provide an ample

margin of safety to protect public health. As explained in the Benzene NESHAP, the first step judgment on acceptability cannot be reduced to any single factor and, thus, the Administrator believes that the acceptability of risk under section 112 is best judged on the basis of a broad set of health risk measures and information. 54 FR 38046, September 14, 1989. Similarly, with regard to the ample margin of safety determination, the Agency again considers all of the health risk and other health information considered in the first step. Beyond that information, additional factors relating to the appropriate level of control will also be considered, including cost and economic impacts of controls, technological feasibility, uncertainties, and any other relevant factors. *Id.*

The Benzene NESHAP approach provides flexibility regarding factors the EPA may consider in making determinations and how the EPA may weigh those factors for each source category. The EPA conducts a risk assessment that provides estimates of the MIR posed by the HAP emissions from each source in the source category, the hazard index (HI) for chronic exposures to HAP with the potential to cause noncancer health effects, and the hazard quotient (HQ) for acute exposures to HAP with the potential to cause noncancer health effects.² The assessment also provides estimates of the distribution of cancer risk within the exposed populations, cancer incidence, and an evaluation of the potential for an adverse environmental effect. The scope of the EPA's risk analysis is consistent with the EPA's response to comments on our policy under the Benzene NESHAP where the EPA explained that the policy chosen by the Administrator permits consideration of multiple measures of health risk. Not only can the

² The MIR is defined as the cancer risk associated with a lifetime of exposure at the highest concentration of HAP where people are likely to live. The HQ is the ratio of the potential HAP exposure concentration to the noncancer dose-response value; the HI is the sum of HQs for HAP that affect the same target organ or organ system.

MIR figure be considered, but also incidence, the presence of non-cancer health effects, and the uncertainties of the risk estimates. In this way, the effect on the most exposed individuals can be reviewed as well as the impact on the general public. These factors can then be weighed in each individual case. This approach complies with the *Vinyl Chloride* mandate that the Administrator ascertain an acceptable level of risk to the public by employing his expertise to assess available data. It also complies with the Congressional intent behind the CAA, which did not exclude the use of any particular measure of public health risk from the EPA's consideration with respect to CAA section 112 regulations, and thereby implicitly permits consideration of any and all measures of health risk which the Administrator, in his judgment, believes are appropriate to determining what will protect the public health. See 54 FR 38057, September 14, 1989.

Thus, the level of the MIR is only one factor to be weighed in determining acceptability of risk.

The Benzene NESHAP explained that an MIR of approximately one-in-10 thousand should ordinarily be the upper end of the range of acceptability. As risks increase above this benchmark, they become presumptively less acceptable under CAA section 112, and would be weighed with the other health risk measures and information in making an overall judgment on acceptability. Or, the Agency may find, in a particular case, that a risk that includes an MIR less than the presumptively acceptable level is unacceptable in the light of other health risk factors.

Id. at 38045. In other words, risks that include an MIR above 100-in-1 million may be determined to be acceptable, and risk with an MIR below that level may be determined to be unacceptable, depending on all of the available health information. Similarly, with regard to the ample margin of safety analysis, the EPA stated in the Benzene NESHAP that: EPA believes the relative weight of the many factors that can be considered in selecting an ample margin of safety can only be determined for each specific source category. This occurs mainly because

technological and economic factors (along with the health-related factors) vary from source category to source category. *Id.* at 38061. We also consider the uncertainties associated with the various risk analyses, as discussed earlier in this preamble, in our determinations of acceptability, and ample margin of safety.

The EPA notes that it has not considered certain health information to date in making residual risk determinations. At this time, we do not attempt to quantify the HAP risk that may be associated with emissions from other facilities that do not include the source category under review, mobile source emissions, natural source emissions, persistent environmental pollution, or atmospheric transformation in the vicinity of the sources in the category.

The EPA understands the potential importance of considering an individual's total exposure to HAP in addition to considering exposure to HAP emissions from the source category and facility. We recognize that such consideration may be particularly important when assessing noncancer risk, where pollutant-specific exposure health reference levels (*e.g.*, reference concentrations (RfCs)) are based on the assumption that thresholds exist for adverse health effects. For example, the EPA recognizes that, although exposures attributable to emissions from a source category or facility alone may not indicate the potential for increased risk of adverse noncancer health effects in a population, the exposures resulting from emissions from the facility in combination with emissions from all of the other sources (*e.g.*, other facilities) to which an individual is exposed may be sufficient to result in an increased risk of adverse noncancer health effects. In May 2010, the Science Advisory Board (SAB) advised the EPA "that RTR assessments will be most useful to decision makers and communities if results are presented in

the broader context of aggregate and cumulative risks, including background concentrations and contributions from other sources in the area.”³

In response to the SAB recommendations, the EPA incorporates cumulative risk analyses into its RTR risk assessments, including those reflected in this proposal. The Agency (1) conducts facility-wide assessments, which include source category emission points, as well as other emission points within the facilities; (2) combines exposures from multiple sources in the same category that could affect the same individuals; and (3) for some persistent and bioaccumulative pollutants, analyzes the ingestion route of exposure. In addition, the RTR risk assessments consider aggregate cancer risk from all carcinogens and aggregated noncancer HQs for all noncarcinogens affecting the same target organ or target organ system.

Although we are interested in placing source category and facility-wide HAP risk in the context of total HAP risk from all sources combined in the vicinity of each source, we are concerned about the uncertainties of doing so. Estimates of total HAP risk from emission sources other than those that we have studied in depth during this RTR review would have significantly greater associated uncertainties than the source category or facility-wide estimates. Such aggregate or cumulative assessments would compound those uncertainties, making the assessments too unreliable.

B. How do we perform the technology review?

Our technology review focuses on the identification and evaluation of developments in practices, processes, and control technologies that have occurred since the MACT standards were

³ Recommendations of the SAB Risk and Technology Review Methods Panel are provided in their report, which is available at: [https://yosemite.epa.gov/sab/sabproduct.nsf/4AB3966E263D943A8525771F00668381/\\$File/EP-A-SAB-10-007-unsigned.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/4AB3966E263D943A8525771F00668381/$File/EP-A-SAB-10-007-unsigned.pdf).

promulgated. Where we identify such developments, we analyze their technical feasibility, estimated costs, energy implications, and non-air environmental impacts. We also consider the emission reductions associated with applying each development. This analysis informs our decision of whether it is “necessary” to revise the emission standards. In addition, we consider the appropriateness of applying controls to new sources versus retrofitting existing sources. For this exercise, we consider any of the following to be a “development”:

- Any add-on control technology or other equipment that was not identified and considered during development of the original MACT standards;
- Any improvements in add-on control technology or other equipment (that were identified and considered during development of the original MACT standards) that could result in additional emissions reduction;
- Any work practice or operational procedure that was not identified or considered during development of the original MACT standards;
- Any process change or pollution prevention alternative that could be broadly applied to the industry and that was not identified or considered during development of the original MACT standards; and
- Any significant changes in the cost (including cost effectiveness) of applying controls (including controls the EPA considered during the development of the original MACT standards).

In addition to reviewing the practices, processes, and control technologies that were considered at the time we originally developed (or last updated) the NESHAP, we review a variety of data sources in our investigation of potential practices, processes, or controls to

consider. See sections II.C and II.D of this preamble for information on the specific data sources that were reviewed as part of the technology review.

C. How do we estimate post-MACT risk posed by the source category?

In this section, we provide a complete description of the types of analyses that we generally perform during the risk assessment process. In some cases, we do not perform a specific analysis because it is not relevant. For example, in the absence of emissions of HAP known to be persistent and bioaccumulative in the environment (PB-HAP), we would not perform a multipathway exposure assessment. Where we do not perform an analysis, we state that we do not and provide the reason. While we present all of our risk assessment methods, we only present risk assessment results for the analyses actually conducted (see section IV.B of this preamble).

The EPA conducts a risk assessment that provides estimates of the MIR for cancer posed by the HAP emissions from each source in the source category, the HI for chronic exposures to HAP with the potential to cause noncancer health effects, and the HQ for acute exposures to HAP with the potential to cause noncancer health effects. The assessment also provides estimates of the distribution of cancer risk within the exposed populations, cancer incidence, and an evaluation of the potential for an adverse environmental effect. The eight sections that follow this paragraph describe how we estimated emissions and conducted the risk assessment. The docket for this action contains the following document which provides more information on the risk assessment inputs and models: *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the 2019 Risk and Technology Review Proposed Rule*. The methods used to assess risk (as described in the eight primary steps below) are consistent with those described by the EPA in the document reviewed by a panel of

the EPA's SAB in 2009,⁴ and described in the SAB review report issued in 2010.⁵ They are also consistent with the key recommendations contained in that report.

1. How did we estimate actual emissions and identify the emissions release characteristics?

The OLD facility list was developed as described in section II.C of this preamble and currently consists of 177 facilities identified as being subject to the OLD NESHAP. The emissions modeling input files were developed using the EPA's 2014 NEI. The complete OLD facility list is available in Appendix 1 of the memorandum, *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the 2019 Risk and Technology Review Proposed Rule*, which is available in the docket for this action.

The EPA used the 2014 NEI data for these facilities to create the risk assessment model input files using all available HAP emissions records and other emission release parameters. From the whole facility risk assessment model input file, the EPA identified emission sources within the OLD source category from the 2014 NEI data such as source classification codes (SCCs) and SCC descriptions, emission unit descriptions, and process descriptions to identify emissions that are subject to OLD and those that are not. For example, emission units that were described as chemical production process vents were marked as being out of the source category. For many facilities in the source category, the EPA used information in the title V permit to relate emissions in the 2014 NEI and to assign whether the emissions are within the OLD source

⁴ U.S. EPA. *Risk and Technology Review (RTR) Risk Assessment Methodologies: For Review by the EPA's Science Advisory Board with Case Studies – MACT I Petroleum Refining Sources and Portland Cement Manufacturing*, June 2009. EPA-452/R-09-006. <https://www3.epa.gov/airtoxics/rrisk/rtrpg.html>.

⁵ U.S. EPA SAB. Review of EPA's draft, *Risk and Technology Review (RTR) Risk Assessment Methodologies: For Review by the EPA's Science Advisory Board with Case Studies – MACT I Petroleum Refining Sources and Portland Cement Manufacturing* May 2010. [https://yosemite.epa.gov/sab/sabproduct.nsf/4AB3966E263D943A8525771F00668381/\\$File/EP-A-SAB-10-007-unsigned.pdf](https://yosemite.epa.gov/sab/sabproduct.nsf/4AB3966E263D943A8525771F00668381/$File/EP-A-SAB-10-007-unsigned.pdf).

category. In several cases, in the absence of definitive information that would place the emissions out of the OLD source category, if the 2014 NEI data indicated the emissions were associated with a storage tank, a transfer rack or equipment leaks, the emissions are presumed to be in the OLD source category. For 21 sources, there were no HAP emissions in the 2014 NEI that were able to be attributed to OLD equipment.

The EPA reviewed emissions release point information such as release point location; emission release point type (stack versus fugitive); temperature; and the correlation between stack diameter, velocity, and volumetric flow. In some cases, we corrected release point locations where the original location was outside of the apparent facility boundary. During the process of quality assuring the modeling file input data, for some cases, we obtained specific information from facility contacts. On November 6, 2018, we also posted a draft of the model input file on the EPA's website at <https://www.epa.gov/stationary-sources-air-pollution/organic-liquids-distribution-national-emission-standards-hazardous>. We received feedback from two companies and included those comments in the docket for this action. Except for removing facilities having no OLD applicability, the EPA did not make any of the changes to the modeling file in response to these comments after posting the draft model input file on the EPA's website because none of the changes would impact the conclusions of the source category risk results.

A record of all changes made to the risk assessment model input file throughout the quality assurance process is provided in Appendix 1 of the memorandum, *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the 2019 Risk and Technology Review Proposed Rule*, which is available in the docket for this action.

2. *How did we estimate MACT-allowable emissions?*

The available emissions data in the RTR emissions dataset include estimates of the mass of HAP emitted during a specified annual time period. These “actual” emission levels are often lower than the emission levels allowed under the requirements of the current MACT standards. The emissions allowed under the MACT standards are referred to as the “MACT-allowable” emissions. We discussed the consideration of both MACT-allowable and actual emissions in the final Coke Oven Batteries RTR (70 FR 19998-19999, April 15, 2005) and in the proposed and final Hazardous Organic NESHAP RTR (71 FR 34428, June 14, 2006, and 71 FR 76609, December 21, 2006, respectively). In those actions, we noted that assessing the risk at the MACT-allowable level is inherently reasonable since that risk reflects the maximum level facilities could emit and still comply with national emission standards. We also explained that it is reasonable to consider actual emissions, where such data are available, in both steps of the risk analysis, in accordance with the Benzene NESHAP approach. (54 FR 38044, September 14, 1989.)

For the risk assessment modeling purposes, we modeled 2014 NEI reported actual emissions for the OLD source category. In preparation of this RTR, we did not conduct an information collection of the equipment in this source category. Instead, we relied primarily upon the 2014 NEI emissions data and readily available title V permit information to characterize the actual emissions from the source category. We consider the use of 2014 NEI actual emissions as the best available reasonable approximation of allowable emissions for the risk assessment model.

3. How do we conduct dispersion modeling, determine inhalation exposures, and estimate individual and population inhalation risk?

Both long-term and short-term inhalation exposure concentrations and health risk from the source category addressed in this proposal were estimated using the Human Exposure Model (HEM-3)⁶. The HEM-3 performs three primary risk assessment activities: (1) conducting dispersion modeling to estimate the concentrations of HAP in ambient air, (2) estimating long-term and short-term inhalation exposures to individuals residing within 50 kilometers (km) of the modeled sources, and (3) estimating individual and population-level inhalation risk using the exposure estimates and quantitative dose-response information.

a. Dispersion Modeling

The air dispersion model AERMOD, used by the HEM-3 model, is one of the EPA's preferred models for assessing air pollutant concentrations from industrial facilities.⁷ To perform the dispersion modeling and to develop the preliminary risk estimates, HEM-3 draws on three data libraries. The first is a library of meteorological data, which is used for dispersion calculations. This library includes 1 year (2016) of hourly surface and upper air observations from 824 meteorological stations, selected to provide coverage of the United States and Puerto Rico. A second library of United States Census Bureau census block⁸ internal point locations and populations provides the basis of human exposure calculations (U.S. Census, 2010). In addition, for each census block, the census library includes the elevation and controlling hill height, which

⁶ For more information about HEM-3, go to <https://www.epa.gov/fera/risk-assessment-and-modeling-human-exposure-model-hem>.

⁷ U.S. EPA. Revision to the *Guideline on Air Quality Models: Adoption of a Preferred General Purpose (Flat and Complex Terrain) Dispersion Model and Other Revisions* (70 FR 68218, November 9, 2005).

⁸ A census block is the smallest geographic area for which census statistics are tabulated.

are also used in dispersion calculations. A third library of pollutant-specific dose-response values is used to estimate health risk. These values are discussed below.

b. Risk from Chronic Exposure to HAP

In developing the risk assessment for chronic exposures, we use the estimated annual average ambient air concentrations of each HAP emitted by each source in the source category. The HAP air concentrations at each nearby census block centroid located within 50 km of the facility are a surrogate for the chronic inhalation exposure concentration for all the people who reside in that census block. A distance of 50 km is consistent with both the analysis supporting the 1989 Benzene NESHAP (54 FR 38044, September 14, 1989) and the limitations of Gaussian dispersion models, including AERMOD.

For each facility, we calculate the MIR as the cancer risk associated with a continuous lifetime (24 hours per day, 7 days per week, 52 weeks per year, 70 years) exposure to the maximum concentration at the centroid of each inhabited census block. We calculate individual cancer risk by multiplying the estimated lifetime exposure to the ambient concentration of each HAP (in micrograms per cubic meter) by its unit risk estimate (URE). The URE is an upper-bound estimate of an individual's incremental risk of contracting cancer over a lifetime of exposure to a concentration of 1 microgram of the pollutant per cubic meter of air. For residual risk assessments, we generally use UREs from the EPA's Integrated Risk Information System (IRIS). For carcinogenic pollutants without IRIS values, we look to other reputable sources of cancer dose-response values, often using California EPA (CalEPA) UREs, where available. In cases where new, scientifically credible dose-response values have been developed in a manner consistent with EPA guidelines and have undergone a peer review process similar to that used by the EPA, we may use such dose-response values in place of, or in addition to, other values, if

appropriate. The pollutant-specific dose-response values used to estimate health risk are available at <https://www.epa.gov/fera/dose-response-assessment-assessing-health-risks-associated-exposure-hazardous-air-pollutants>.

To estimate individual lifetime cancer risks associated with exposure to HAP emissions from each facility in the source category, we sum the risks for each of the carcinogenic HAP⁹ emitted by the modeled facility. We estimate cancer risk at every census block within 50 km of every facility in the source category. The MIR is the highest individual lifetime cancer risk estimated for any of those census blocks. In addition to calculating the MIR, we estimate the distribution of individual cancer risks for the source category by summing the number of individuals within 50 km of the sources whose estimated risk falls within a specified risk range. We also estimate annual cancer incidence by multiplying the estimated lifetime cancer risk at each census block by the number of people residing in that block, summing results for all of the census blocks, and then dividing this result by a 70-year lifetime.

To assess the risk of noncancer health effects from chronic exposure to HAP, we calculate either an HQ or a target organ-specific hazard index (TOSHI). We calculate an HQ

⁹ The EPA's 2005 *Guidelines for Carcinogen Risk Assessment* classifies carcinogens as: "carcinogenic to humans," "likely to be carcinogenic to humans," and "suggestive evidence of carcinogenic potential." These classifications also coincide with the terms "known carcinogen, probable carcinogen, and possible carcinogen," respectively, which are the terms advocated in the EPA's *Guidelines for Carcinogen Risk Assessment*, published in 1986 (51 FR 33992, September 24, 1986). In August 2000, the document, *Supplemental Guidance for Conducting Health Risk Assessment of Chemical Mixtures* (EPA/630/R-00/002), was published as a supplement to the 1986 document. Copies of both documents can be obtained from <https://cfpub.epa.gov/ncea/risk/recorddisplay.cfm?deid=20533&CFID=70315376&CFTOKEN=71597944>. Summing the risks of these individual compounds to obtain the cumulative cancer risks is an approach that was recommended by the EPA's SAB in their 2002 peer review of the EPA's National Air Toxics Assessment (NATA) titled, *NATA - Evaluating the National-scale Air Toxics Assessment 1996 Data -- an SAB Advisory*, available at [http://yosemite.epa.gov/sab/sabproduct.nsf/214C6E915BB04E14852570CA007A682C/\\$File/eca_dv02001.pdf](http://yosemite.epa.gov/sab/sabproduct.nsf/214C6E915BB04E14852570CA007A682C/$File/eca_dv02001.pdf).

when a single noncancer HAP is emitted. Where more than one noncancer HAP is emitted, we sum the HQ for each of the HAP that affects a common target organ or target organ system to obtain a TOSHI. The HQ is the estimated exposure divided by the chronic noncancer dose-response value, which is a value selected from one of several sources. The preferred chronic noncancer dose-response value is the EPA RfC, defined as “an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime”

(https://iaspub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&vocabName=IRIS%20Glossary). In cases where an RfC from the EPA’s IRIS is not available or where the EPA determines that using a value other than the RfC is appropriate, the chronic noncancer dose-response value can be a value from the following prioritized sources, which define their dose-response values similarly to the EPA: (1) the Agency for Toxic Substances and Disease Registry (ATSDR) Minimum Risk Level (<https://www.atsdr.cdc.gov/mrls/index.asp>); (2) the CalEPA Chronic Reference Exposure Level (REL) (<https://oehha.ca.gov/air/crnrr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>); or (3) as noted above, a scientifically credible dose-response value that has been developed in a manner consistent with the EPA guidelines and has undergone a peer review process similar to that used by the EPA. The pollutant-specific dose-response values used to estimate health risks are available at <https://www.epa.gov/fera/dose-response-assessment-assessing-health-risks-associated-exposure-hazardous-air-pollutants>.

c. Risk from Acute Exposure to HAP that May Cause Health Effects Other Than Cancer

For each HAP for which appropriate acute inhalation dose-response values are available, the EPA also assesses the potential health risks due to acute exposure. For these assessments, the EPA makes conservative assumptions about emission rates, meteorology, and exposure location. In this proposed rulemaking, as part of our efforts to continually improve our methodologies to evaluate the risks that HAP emitted from categories of industrial sources pose to human health and the environment,¹⁰ we are revising our treatment of meteorological data to use reasonable worst-case air dispersion conditions in our acute risk screening assessments instead of worst-case air dispersion conditions. This revised treatment of meteorological data and the supporting rationale are described in more detail in *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the 2019 Risk and Technology Review Proposed Rule* and in Appendix 5 of the report: *Technical Support Document for Acute Risk Screening Assessment*. We have been applying this revision in RTR rulemakings proposed on or after June 3, 2019.

To assess the potential acute risk to the maximally exposed individual, we use the peak hourly emission rate for each emission point, reasonable worst-case air dispersion conditions (*i.e.*, 99th percentile),¹¹ and the point of highest off-site exposure. Specifically, we assume that peak emissions from the source category and reasonable worst-case air dispersion conditions co-

¹⁰ See, *e.g.*, U.S. EPA. *Screening Methodologies to Support Risk and Technology Reviews (RTR): A Case Study Analysis* (Draft Report, May 2017. <https://www3.epa.gov/ttn/atw/rrisk/rtrpg.html>).

¹¹ In the absence of hourly emission data, we develop estimates of maximum hourly emission rates by multiplying the average actual annual emissions rates by a factor (either a category-specific factor or a default factor of 10) to account for variability. This is documented in *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the 2019 Risk and Technology Review Proposed Rule* and in Appendix 5 of the report: *Technical Support Document for Acute Risk Screening Assessment*. Both are available in the docket for this action.

occur and that a person is present at the point of maximum exposure. These assumptions represent a reasonable worst-case exposure scenario and, although less conservative than our previous approach, is still sufficiently conservative given that it is unlikely that a person would be located at the point of maximum exposure during the time when peak emissions and reasonable worst-case air dispersion conditions occur simultaneously.

To characterize the potential health risks associated with estimated acute inhalation exposures to a HAP, we generally use multiple acute dose-response values, including acute RELs, acute exposure guideline levels (AEGLs), and emergency response planning guidelines (ERPG) for 1-hour exposure durations, if available, to calculate acute HQs. The acute HQ is calculated by dividing the estimated acute exposure concentration by the acute dose-response value. For each HAP for which acute dose-response values are available, the EPA calculates acute HQs.

An acute REL is defined as “the concentration level at or below which no adverse health effects are anticipated for a specified exposure duration.”¹² Acute RELs are based on the most sensitive, relevant, adverse health effect reported in the peer-reviewed medical and toxicological literature. They are designed to protect the most sensitive individuals in the population through the inclusion of margins of safety. Because margins of safety are incorporated to address data gaps and uncertainties, exceeding the REL does not automatically indicate an adverse health impact. AEGLs represent threshold exposure limits for the general public and are applicable to

¹² CalEPA issues acute RELs as part of its Air Toxics Hot Spots Program, and the 1-hour and 8-hour values are documented in *Air Toxics Hot Spots Program Risk Assessment Guidelines, Part I, The Determination of Acute Reference Exposure Levels for Airborne Toxicants*, which is available at <http://oehha.ca.gov/air/general-info/oehha-acute-8-hour-and-chronic-reference-exposure-level-rel-summary>.

emergency exposures ranging from 10 minutes to 8 hours.¹³ They are guideline levels for “once-in-a-lifetime, short-term exposures to airborne concentrations of acutely toxic, high-priority chemicals.” *Id.* at 21. The AEGL–1 is specifically defined as “the airborne concentration (expressed as ppm (parts per million) or mg/m³ (milligrams per cubic meter)) of a substance above which it is predicted that the general population, including susceptible individuals, could experience notable discomfort, irritation, or certain asymptomatic nonsensory effects. However, the effects are not disabling and are transient and reversible upon cessation of exposure.” The document also notes that “Airborne concentrations below AEGL–1 represent exposure levels that can produce mild and progressively increasing but transient and nondisabling odor, taste, and sensory irritation or certain asymptomatic, nonsensory effects.” *Id.* AEGL–2 are defined as “the airborne concentration (expressed as parts per million or milligrams per cubic meter) of a substance above which it is predicted that the general population, including susceptible individuals, could experience irreversible or other serious, long-lasting adverse health effects or an impaired ability to escape.” *Id.*

ERPGs are “developed for emergency planning and are intended as health-based guideline concentrations for single exposures to chemicals.”¹⁴ *Id.* at 1. The ERPG–1 is defined as

¹³ National Academy of Sciences, 2001. *Standing Operating Procedures for Developing Acute Exposure Levels for Hazardous Chemicals*, page 2. Available at https://www.epa.gov/sites/production/files/2015-09/documents/sop_final_standing_operating_procedures_2001.pdf. Note that the National Advisory Committee for Acute Exposure Guideline Levels for Hazardous Substances ended in October 2011, but the AEGL program continues to operate at the EPA and works with the National Academies to publish final AEGLs (<https://www.epa.gov/aegl>).

¹⁴ *ERPGS Procedures and Responsibilities*. March 2014. American Industrial Hygiene Association. Available at: <https://www.aiha.org/get-involved/AIHAGuidelineFoundation/EmergencyResponsePlanningGuidelines/Documents/ERPG%20Committee%20Standard%20Operating%20Procedures%20%20-%20March%202014%20Revision%20%28Updated%2010-2-2014%29.pdf>.

“the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hour without experiencing other than mild transient adverse health effects or without perceiving a clearly defined, objectionable odor.” *Id.* at 2. Similarly, the ERPG–2 is defined as “the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to 1 hour without experiencing or developing irreversible or other serious health effects or symptoms which could impair an individual’s ability to take protective action.” *Id.* at 1.

An acute REL for 1-hour exposure durations is typically lower than its corresponding AEGL–1 and ERPG–1. Even though their definitions are slightly different, AEGL–1s are often the same as the corresponding ERPG–1s, and AEGL–2s are often equal to ERPG–2s. The maximum HQs from our acute inhalation screening risk assessment typically result when we use the acute REL for a HAP. In cases where the maximum acute HQ exceeds 1, we also report the HQ based on the next highest acute dose-response value (usually the AEGL–1 and/or the ERPG–1).

For this source category, we used the default acute emissions multiplier of 10 to conservatively estimate maximum hourly rates.

In our acute inhalation screening risk assessment, acute impacts are deemed negligible for HAP where acute HQs are less than or equal to 1, and no further analysis is performed for these HAP. In cases for which an acute HQ from the screening step is greater than 1, we assess the site-specific data to ensure that the acute HQ is at an off-site location. For this source category, the data refinements employed consisted of determining the maximum off-site acute HQ for each facility that had an initial HQ greater than 1. These refinements are discussed more fully in the *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline)*

Source Category in Support of the 2019 Risk and Technology Review Proposed Rule, which is available in the docket for this action.

4. How do we conduct the multipathway exposure and risk screening assessment?

The EPA conducts a tiered screening assessment examining the potential for significant human health risks due to exposures via routes other than inhalation (*i.e.*, ingestion). We first determine whether any sources in the source category emit any HAP known to be persistent and bioaccumulative in the environment, as identified in the EPA's Air Toxics Risk Assessment Library (see Volume 1, Appendix D, at <https://www.epa.gov/fera/risk-assessment-and-modeling-air-toxics-risk-assessment-reference-library>).

For the OLD source category, we identified PB-HAP emissions of arsenic, cadmium, lead, mercury, and polycyclic organic matter (POM). Therefore, we proceeded to the next step of the evaluation. Except for lead, the human health risk screening assessment for PB-HAP consists of three progressive tiers. In a Tier 1 screening assessment, we determine whether the magnitude of the facility-specific emissions of PB-HAP warrants further evaluation to characterize human health risk through ingestion exposure. To facilitate this step, we evaluate emissions against previously developed screening threshold emission rates for several PB-HAP that are based on a hypothetical upper-end screening exposure scenario developed for use in conjunction with the EPA's Total Risk Integrated Methodology.Fate, Transport, and Ecological Exposure (TRIM.FaTE) model. The PB-HAP with screening threshold emission rates are arsenic compounds, cadmium compounds, chlorinated dibenzodioxins and furans, mercury compounds, and POM. Based on the EPA estimates of toxicity and bioaccumulation potential, these pollutants represent a conservative list for inclusion in multipathway risk assessments for RTR rules. (See Volume 1, Appendix D at <https://www.epa.gov/sites/production/files/2013->

08/documents/volume_1_reflibrary.pdf). In this assessment, we compare the facility-specific emission rates of these PB-HAP to the screening threshold emission rates for each PB-HAP to assess the potential for significant human health risks via the ingestion pathway. We call this application of the TRIM.FaTE model the Tier 1 screening assessment. The ratio of a facility's actual emission rate to the Tier 1 screening threshold emission rate is a "screening value."

We derive the Tier 1 screening threshold emission rates for these PB-HAP (other than lead compounds) to correspond to a maximum excess lifetime cancer risk of 1-in-1 million (*i.e.*, for arsenic compounds, polychlorinated dibenzodioxins and furans and POM) or, for HAP that cause noncancer health effects (*i.e.*, cadmium compounds and mercury compounds), a maximum HQ of 1. If the emission rate of any one PB-HAP or combination of carcinogenic PB-HAP in the Tier 1 screening assessment exceeds the Tier 1 screening threshold emission rate for any facility (*i.e.*, the screening value is greater than 1), we conduct a second screening assessment, which we call the Tier 2 screening assessment. The Tier 2 screening assessment separates the Tier 1 combined fisher and farmer exposure scenario into fisher, farmer, and gardener scenarios that retain upper-bound ingestion rates.

In the Tier 2 screening assessment, the location of each facility that exceeds a Tier 1 screening threshold emission rate is used to refine the assumptions associated with the Tier 1 fisher scenario and farmer exposure scenarios at that facility. A key assumption in the Tier 1 screening assessment is that a lake and/or farm is located near the facility. As part of the Tier 2 screening assessment, we use a U.S. Geological Survey (USGS) database to identify actual waterbodies within 50 km of each facility and assume the fisher only consumes fish from lakes within that 50 km zone. We also examine the differences between local meteorology near the facility and the meteorology used in the Tier 1 screening assessment. We then adjust the

previously-developed Tier 1 screening threshold emission rates for each PB-HAP for each facility based on an understanding of how exposure concentrations estimated for the screening scenario change with the use of local meteorology and USGS lakes database.

In the Tier 2 farmer scenario, we maintain an assumption that the farm is located within 0.5 km of the facility and that the farmer consumes meat, eggs, dairy, vegetables, and fruit produced near the facility. We may further refine the Tier 2 screening analysis by assessing a gardener scenario to characterize a range of exposures with the gardener scenario being more plausible in RTR evaluations. Under the gardener scenario, we assume the gardener consumes home-produced eggs, vegetables, and fruit products at the same ingestion rate as the farmer. The Tier 2 screen continues to rely on the high-end food intake assumptions that were applied in Tier 1 for local fish (adult female angler at 99th percentile fish consumption¹⁵) and locally grown or raised foods (90th percentile consumption of locally grown or raised foods for the farmer and gardener scenarios¹⁶). If PB-HAP emission rates do not result in a Tier 2 screening value greater than 1, we consider those PB-HAP emissions to pose risks below a level of concern. If the PB-HAP emission rates for a facility exceed the Tier 2 screening threshold emission rates, we may conduct a Tier 3 screening assessment.

There are several analyses that can be included in a Tier 3 screening assessment, depending upon the extent of refinement warranted, including validating that the lakes are fishable, locating residential/garden locations for urban and/or rural settings, considering plume-rise to estimate emissions lost above the mixing layer, and considering hourly effects of

¹⁵ Burger, J. 2002. Daily consumption of wild fish and game: Exposures of high end recreationists. *International Journal of Environmental Health Research* 12:343–354.

¹⁶ U.S. EPA. *Exposure Factors Handbook 2011 Edition (Final)*. U.S. Environmental Protection Agency, Washington, DC, EPA/600/R-09/052F, 2011.

meteorology and plume rise on chemical fate and transport (a time-series analysis). If necessary, the EPA may further refine the screening assessment through a site-specific assessment.

In evaluating the potential multipathway risk from emissions of lead compounds, rather than developing a screening threshold emission rate, we compare maximum estimated chronic inhalation exposure concentrations to the level of the current National Ambient Air Quality Standard (NAAQS) for lead.¹⁷ Values below the level of the primary (health-based) lead NAAQS are considered to have a low potential for multipathway risk. For further information on the multipathway assessment approach, see the *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the Risk and Technology Review 2019 Proposed Rule*, which is available in the docket for this action.

5. How do we assess risks considering emissions control options?

In addition to assessing baseline inhalation risks and screening for potential multipathway risks, we also estimate risks considering the potential emission reductions that would be achieved by the control options under consideration. In these cases, the expected emission reductions are applied to the specific HAP and emission points in the RTR emissions dataset to develop corresponding estimates of risk and incremental risk reductions.

¹⁷ In doing so, the EPA notes that the legal standard for a primary NAAQS – that a standard is requisite to protect public health and provide an adequate margin of safety (CAA section 109(b)) – differs from the CAA section 112(f) standard (requiring, among other things, that the standard provide an “ample margin of safety”). However, the primary lead NAAQS is a reasonable measure of determining risk acceptability (*i.e.*, the first step of the Benzene NESHAP analysis) since it is designed to protect the most susceptible group in the human population – children, including children living near major lead emitting sources. 73 FR 67002/3; 73 FR 67000/3; 73 FR 67005/1. In addition, applying the level of the primary lead NAAQS at the risk acceptability step is conservative, since that primary lead NAAQS reflects an adequate margin of safety.

6. How do we conduct the environmental risk screening assessment?

a. Adverse Environmental Effect, Environmental HAP, and Ecological Benchmarks

The EPA conducts a screening assessment to examine the potential for an adverse environmental effect as required under section 112(f)(2)(A) of the CAA. Section 112(a)(7) of the CAA defines “adverse environmental effect” as “any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.”

The EPA focuses on eight HAP, which are referred to as “environmental HAP,” in its screening assessment: six PB-HAP and two acid gases. The PB-HAP included in the screening assessment are arsenic compounds, cadmium compounds, dioxins/furans, POM, mercury (both inorganic mercury and methyl mercury), and lead compounds. The acid gases included in the screening assessment are hydrochloric acid (HCl) and hydrogen fluoride (HF).

HAP that persist and bioaccumulate are of particular environmental concern because they accumulate in the soil, sediment, and water. The acid gases, HCl and HF, are included due to their well-documented potential to cause direct damage to terrestrial plants. In the environmental risk screening assessment, we evaluate the following four exposure media: terrestrial soils, surface water bodies (includes water-column and benthic sediments), fish consumed by wildlife, and air. Within these four exposure media, we evaluate nine ecological assessment endpoints, which are defined by the ecological entity and its attributes. For PB-HAP (other than lead), both community-level and population-level endpoints are included. For acid gases, the ecological assessment evaluated is terrestrial plant communities.

An ecological benchmark represents a concentration of HAP that has been linked to a particular environmental effect level. For each environmental HAP, we identified the available ecological benchmarks for each assessment endpoint. We identified, where possible, ecological benchmarks at the following effect levels: probable effect levels, lowest-observed-adverse-effect level, and no-observed-adverse-effect level. In cases where multiple effect levels were available for a particular PB-HAP and assessment endpoint, we use all of the available effect levels to help us to determine whether ecological risks exist and, if so, whether the risks could be considered significant and widespread.

For further information on how the environmental risk screening assessment was conducted, including a discussion of the risk metrics used, how the environmental HAP were identified, and how the ecological benchmarks were selected, see Appendix 9 of the *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the Risk and Technology Review 2019 Proposed Rule*, which is available in the docket for this action.

b. Environmental Risk Screening Methodology

For the environmental risk screening assessment, the EPA first determined whether any facilities in the OLD source category emitted any of the environmental HAP. For the OLD source category, we identified emissions of arsenic compounds, cadmium compounds, dioxins/furans, POM, mercury (both inorganic mercury and methyl mercury), lead compounds, HCl, and HF. Because one or more of the environmental HAP evaluated are emitted by at least one facility in the source category, we proceeded to the second step of the evaluation.

c. PB-HAP Methodology

The environmental screening assessment includes six PB-HAP, arsenic compounds, cadmium compounds, dioxins/furans, POM, mercury (both inorganic mercury and methyl mercury), and lead compounds. With the exception of lead, the environmental risk screening assessment for PB-HAP consists of three tiers. The first tier of the environmental risk screening assessment uses the same health-protective conceptual model that is used for the Tier 1 human health screening assessment. TRIM.FaTE model simulations were used to back-calculate Tier 1 screening threshold emission rates. The screening threshold emission rates represent the emission rate in tons of pollutant per year that results in media concentrations at the facility that equal the relevant ecological benchmark. To assess emissions from each facility in the category, the reported emission rate for each PB-HAP was compared to the Tier 1 screening threshold emission rate for that PB-HAP for each assessment endpoint and effect level. If emissions from a facility do not exceed the Tier 1 screening threshold emission rate, the facility “passes” the screening assessment, and, therefore, is not evaluated further under the screening approach. If emissions from a facility exceed the Tier 1 screening threshold emission rate, we evaluate the facility further in Tier 2.

In Tier 2 of the environmental screening assessment, the screening threshold emission rates are adjusted to account for local meteorology and the actual location of lakes in the vicinity of facilities that did not pass the Tier 1 screening assessment. For soils, we evaluate the average soil concentration for all soil parcels within a 7.5-km radius for each facility and PB-HAP. For the water, sediment, and fish tissue concentrations, the highest value for each facility for each pollutant is used. If emission concentrations from a facility do not exceed the Tier 2 screening threshold emission rate, the facility “passes” the screening assessment and typically is not

evaluated further. If emissions from a facility exceed the Tier 2 screening threshold emission rate, we evaluate the facility further in Tier 3.

As in the multipathway human health risk assessment, in Tier 3 of the environmental screening assessment, we examine the suitability of the lakes around the facilities to support life and remove those that are not suitable (*e.g.*, lakes that have been filled in or are industrial ponds), adjust emissions for plume-rise, and conduct hour-by-hour time-series assessments. If these Tier 3 adjustments to the screening threshold emission rates still indicate the potential for an adverse environmental effect (*i.e.*, facility emission rate exceeds the screening threshold emission rate), we may elect to conduct a more refined assessment using more site-specific information. If, after additional refinement, the facility emission rate still exceeds the screening threshold emission rate, the facility may have the potential to cause an adverse environmental effect.

To evaluate the potential for an adverse environmental effect from lead, we compared the average modeled air concentrations (from HEM-3) of lead around each facility in the source category to the level of the secondary NAAQS for lead. The secondary lead NAAQS is a reasonable means of evaluating environmental risk because it is set to provide substantial protection against adverse welfare effects which can include “effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being.”

d. Acid Gas Environmental Risk Methodology

The environmental screening assessment for acid gases evaluates the potential phytotoxicity and reduced productivity of plants due to chronic exposure to HF and HCl. The environmental risk screening methodology for acid gases is a single-tier screening assessment

that compares modeled ambient air concentrations (from AERMOD) to the ecological benchmarks for each acid gas. To identify a potential adverse environmental effect (as defined in section 112(a)(7) of the CAA) from emissions of HF and HCl, we evaluate the following metrics: the size of the modeled area around each facility that exceeds the ecological benchmark for each acid gas, in acres and km²; the percentage of the modeled area around each facility that exceeds the ecological benchmark for each acid gas; and the area-weighted average screening value around each facility (calculated by dividing the area-weighted average concentration over the 50-km modeling domain by the ecological benchmark for each acid gas). For further information on the environmental screening assessment approach, see Appendix 9 of the *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the Risk and Technology Review 2019 Proposed Rule*, which is available in the docket for this action.

7. How do we conduct facility-wide assessments?

To put the source category risks in context, we typically examine the risks from the entire “facility,” where the facility includes all HAP-emitting operations within a contiguous area and under common control. In other words, we examine the HAP emissions not only from the source category emission points of interest, but also emissions of HAP from all other emission sources at the facility for which we have data. For this source category, we conducted the facility-wide assessment using a dataset compiled from the 2014 NEI. We flagged source category records of that NEI dataset as described in section II.C of this preamble. We performed quality assurance and quality control on the whole facility dataset, including the source category records. The facility-wide file was then used to analyze risks due to the inhalation of HAP that are emitted “facility-wide” for the populations residing within 50 km of each facility, consistent with the

methods used for the source category analysis described above. For these facility-wide risk analyses, the modeled source category risks were compared to the facility-wide risks to determine the portion of the facility-wide risks that could be attributed to the source category addressed in this proposal. We also specifically examined the facility that was associated with the highest estimate of risk and determined the percentage of that risk attributable to the source category of interest. *The Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the Risk and Technology Review 2019 Proposed Rule*, available through the docket for this action, provides the methodology and results of the facility-wide analyses, including all facility-wide risks and the percentage of source category contribution to facility-wide risks.

8. How do we consider uncertainties in risk assessment?

Uncertainty and the potential for bias are inherent in all risk assessments, including those performed for this proposal. Although uncertainty exists, we believe that our approach, which used conservative tools and assumptions, ensures that our decisions are health and environmentally protective. A brief discussion of the uncertainties in the RTR emissions dataset, dispersion modeling, inhalation exposure estimates, and dose-response relationships follows below. Also included are those uncertainties specific to our acute screening assessments, multipathway screening assessments, and our environmental risk screening assessments. A more thorough discussion of these uncertainties is included in the *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the Risk and Technology Review 2019 Proposed Rule*, which is available in the docket for this action. If a multipathway site-specific assessment was performed for this source category, a full discussion

of the uncertainties associated with that assessment can be found in Appendix 11 of that document, *Site-Specific Human Health Multipathway Residual Risk Assessment Report*.

a. Uncertainties in the RTR Emissions Dataset

Although the development of the RTR emissions dataset involved quality assurance/quality control processes, the accuracy of emissions values will vary depending on the source of the data, the degree to which data are incomplete or missing, the degree to which assumptions made to complete the datasets are accurate, errors in emission estimates, and other factors. The emission estimates considered in this analysis generally are annual totals for certain years, and they do not reflect short-term fluctuations during the course of a year or variations from year to year. The estimates of peak hourly emission rates for the acute effects screening assessment were based on an emission adjustment factor applied to the average annual hourly emission rates, which are intended to account for emission fluctuations due to normal facility operations.

b. Uncertainties in Dispersion Modeling

We recognize there is uncertainty in ambient concentration estimates associated with any model, including the EPA's recommended regulatory dispersion model, AERMOD. In using a model to estimate ambient pollutant concentrations, the user chooses certain options to apply. For RTR assessments, we select some model options that have the potential to overestimate ambient air concentrations (*e.g.*, not including plume depletion or pollutant transformation). We select other model options that have the potential to underestimate ambient impacts (*e.g.*, not including building downwash). Other options that we select have the potential to either under- or overestimate ambient levels (*e.g.*, meteorology and receptor locations). On balance, considering the directional nature of the uncertainties commonly present in ambient concentrations estimated

by dispersion models, the approach we apply in the RTR assessments should yield unbiased estimates of ambient HAP concentrations. We also note that the selection of meteorology dataset location could have an impact on the risk estimates. As we continue to update and expand our library of meteorological station data used in our risk assessments, we expect to reduce this variability.

c. Uncertainties in Inhalation Exposure Assessment

Although every effort is made to identify all of the relevant facilities and emission points, as well as to develop accurate estimates of the annual emission rates for all relevant HAP, the uncertainties in our emission inventory likely dominate the uncertainties in the exposure assessment. Some uncertainties in our exposure assessment include human mobility, using the centroid of each census block, assuming lifetime exposure, and assuming only outdoor exposures. For most of these factors, there is neither an under nor overestimate when looking at the maximum individual risk or the incidence, but the shape of the distribution of risks may be affected. With respect to outdoor exposures, actual exposures may not be as high if people spend time indoors, especially for very reactive pollutants or larger particles. For all factors, we reduce uncertainty when possible. For example, with respect to census-block centroids, we analyze large blocks using aerial imagery and adjust locations of the block centroids to better represent the population in the blocks. We also add additional receptor locations where the population of a block is not well represented by a single location.

d. Uncertainties in Dose-Response Relationships

There are uncertainties inherent in the development of the dose-response values used in our risk assessments for cancer effects from chronic exposures and noncancer effects from both chronic and acute exposures. Some uncertainties are generally expressed quantitatively, and

others are generally expressed in qualitative terms. We note, as a preface to this discussion, a point on dose-response uncertainty that is stated in the EPA's *2005 Guidelines for Carcinogen Risk Assessment*; namely, that "the primary goal of EPA actions is protection of human health; accordingly, as an Agency policy, risk assessment procedures, including default options that are used in the absence of scientific data to the contrary, should be health protective" (the EPA's *2005 Guidelines for Carcinogen Risk Assessment*, page 1-7). This is the approach followed here as summarized in the next paragraphs.

Cancer UREs used in our risk assessments are those that have been developed to generally provide an upper bound estimate of risk.¹⁸ That is, they represent a "plausible upper limit to the true value of a quantity" (although this is usually not a true statistical confidence limit). In some circumstances, the true risk could be as low as zero; however, in other circumstances the risk could be greater.¹⁹ Chronic noncancer RfC and reference dose (RfD) values represent chronic exposure levels that are intended to be health-protective levels. To derive dose-response values that are intended to be "without appreciable risk," the methodology relies upon an uncertainty factor (UF) approach,²⁰ which considers uncertainty, variability, and gaps in the available data. The UFs are applied to derive dose-response values that are intended to protect against appreciable risk of deleterious effects.

¹⁸ IRIS glossary (https://ofmpub.epa.gov/sor_internet/registry/termreg/searchandretrieve/glossariesandkeywordlists/search.do?details=&glossaryName=IRIS%20Glossary).

¹⁹ An exception to this is the URE for benzene, which is considered to cover a range of values, each end of which is considered to be equally plausible, and which is based on maximum likelihood estimates.

²⁰ See *A Review of the Reference Dose and Reference Concentration Processes*, U.S. EPA, December 2002, and *Methods for Derivation of Inhalation Reference Concentrations and Application of Inhalation Dosimetry*, U.S. EPA, 1994.

Many of the UFs used to account for variability and uncertainty in the development of acute dose-response values are quite similar to those developed for chronic durations. Additional adjustments are often applied to account for uncertainty in extrapolation from observations at one exposure duration (*e.g.*, 4 hours) to derive an acute dose-response value at another exposure duration (*e.g.*, 1 hour). Not all acute dose-response values are developed for the same purpose, and care must be taken when interpreting the results of an acute assessment of human health effects relative to the dose-response value or values being exceeded. Where relevant to the estimated exposures, the lack of acute dose-response values at different levels of severity should be factored into the risk characterization as potential uncertainties.

Uncertainty also exists in the selection of ecological benchmarks for the environmental risk screening assessment. We established a hierarchy of preferred benchmark sources to allow selection of benchmarks for each environmental HAP at each ecological assessment endpoint. We searched for benchmarks for three effect levels (*i.e.*, no-effects level, threshold-effect level, and probable effect level), but not all combinations of ecological assessment/environmental HAP had benchmarks for all three effect levels. Where multiple effect levels were available for a particular HAP and assessment endpoint, we used all of the available effect levels to help us determine whether risk exists and whether the risk could be considered significant and widespread.

Although we make every effort to identify appropriate human health effect dose-response values for all pollutants emitted by the sources in this risk assessment, some HAP emitted by this source category are lacking dose-response assessments. Accordingly, these pollutants cannot be included in the quantitative risk assessment, which could result in quantitative estimates understating HAP risk. To help to alleviate this potential underestimate, where we conclude

similarity with a HAP for which a dose-response value is available, we use that value as a surrogate for the assessment of the HAP for which no value is available. To the extent use of surrogates indicates appreciable risk, we may identify a need to increase priority for an IRIS assessment for that substance. We additionally note that, generally speaking, HAP of greatest concern due to environmental exposures and hazard are those for which dose-response assessments have been performed, reducing the likelihood of understating risk. Further, HAP not included in the quantitative assessment are assessed qualitatively and considered in the risk characterization that informs the risk management decisions, including consideration of HAP reductions achieved by various control options.

For a group of compounds that are unspeciated (*e.g.*, glycol ethers), we conservatively use the most protective dose-response value of an individual compound in that group to estimate risk. Similarly, for an individual compound in a group (*e.g.*, ethylene glycol diethyl ether) that does not have a specified dose-response value, we also apply the most protective dose-response value from the other compounds in the group to estimate risk.

e. Uncertainties in Acute Inhalation Screening Assessments

In addition to the uncertainties highlighted above, there are several factors specific to the acute exposure assessment that the EPA conducts as part of the risk review under section 112 of the CAA. The accuracy of an acute inhalation exposure assessment depends on the simultaneous occurrence of independent factors that may vary greatly, such as hourly emissions rates, meteorology, and the presence of a person. In the acute screening assessment that we conduct under the RTR program, we assume that peak emissions from the source category and reasonable worst-case air dispersion conditions (*i.e.*, 99th percentile) co-occur. We then include the additional assumption that a person is located at this point at the same time. Together, these

assumptions represent a reasonable worst-case exposure scenario. In most cases, it is unlikely that a person would be located at the point of maximum exposure during the time when peak emissions and reasonable worst-case air dispersion conditions occur simultaneously.

f. Uncertainties in the Multipathway and Environmental Risk Screening Assessments

For each source category, we generally rely on site-specific levels of PB-HAP or environmental HAP emissions to determine whether a refined assessment of the impacts from multipathway exposures is necessary or whether it is necessary to perform an environmental screening assessment. This determination is based on the results of a three-tiered screening assessment that relies on the outputs from models – TRIM.FaTE and AERMOD – that estimate environmental pollutant concentrations and human exposures for five PB-HAP (dioxins, POM, mercury, cadmium, and arsenic) and two acid gases (HF and HCl). For lead, we use AERMOD to determine ambient air concentrations, which are then compared to the secondary NAAQS standard for lead. Two important types of uncertainty associated with the use of these models in RTR risk assessments and inherent to any assessment that relies on environmental modeling are model uncertainty and input uncertainty.²¹

Model uncertainty concerns whether the model adequately represents the actual processes (*e.g.*, movement and accumulation) that might occur in the environment. For example, does the model adequately describe the movement of a pollutant through the soil? This type of uncertainty is difficult to quantify. However, based on feedback received from the previous EPA SAB reviews and other reviews, we are confident that the models used in the screening assessments

²¹ In the context of this discussion, the term “uncertainty” as it pertains to exposure and risk encompasses both *variability* in the range of expected inputs and screening results due to existing spatial, temporal, and other factors, as well as *uncertainty* in being able to accurately estimate the true result.

are appropriate and state-of-the-art for the multipathway and environmental screening risk assessments conducted in support of RTR.

Input uncertainty is concerned with how accurately the models have been configured and parameterized for the assessment at hand. For Tier 1 of the multipathway and environmental screening assessments, we configured the models to avoid underestimating exposure and risk. This was accomplished by selecting upper-end values from nationally representative datasets for the more influential parameters in the environmental model, including selection and spatial configuration of the area of interest, lake location and size, meteorology, surface water, soil characteristics, and structure of the aquatic food web. We also assume an ingestion exposure scenario and values for human exposure factors that represent reasonable maximum exposures.

In Tier 2 of the multipathway and environmental screening assessments, we refine the model inputs to account for meteorological patterns in the vicinity of the facility versus using upper-end national values, and we identify the actual location of lakes near the facility rather than the default lake location that we apply in Tier 1. By refining the screening approach in Tier 2 to account for local geographical and meteorological data, we decrease the likelihood that concentrations in environmental media are overestimated, thereby increasing the usefulness of the screening assessment. In Tier 3 of the screening assessments, we refine the model inputs again to account for hour-by-hour plume rise and the height of the mixing layer. We can also use those hour-by-hour meteorological data in a TRIM.FaTE run using the screening configuration corresponding to the lake location. These refinements produce a more accurate estimate of chemical concentrations in the media of interest, thereby reducing the uncertainty with those estimates. The assumptions and the associated uncertainties regarding the selected ingestion exposure scenario are the same for all three tiers.

For the environmental screening assessment for acid gases, we employ a single-tiered approach. We use the modeled air concentrations and compare those with ecological benchmarks.

For all tiers of the multipathway and environmental screening assessments, our approach to addressing model input uncertainty is generally cautious. We choose model inputs from the upper end of the range of possible values for the influential parameters used in the models, and we assume that the exposed individual exhibits ingestion behavior that would lead to a high total exposure. This approach reduces the likelihood of not identifying high risks for adverse impacts.

Despite the uncertainties, when individual pollutants or facilities do not exceed screening threshold emission rates (*i.e.*, screen out), we are confident that the potential for adverse multipathway impacts on human health is very low. On the other hand, when individual pollutants or facilities do exceed screening threshold emission rates, it does not mean that impacts are significant, only that we cannot rule out that possibility and that a refined assessment for the site might be necessary to obtain a more accurate risk characterization for the source category.

The EPA evaluates the following HAP in the multipathway and/or environmental risk screening assessments, where applicable: arsenic, cadmium, dioxins/furans, lead, mercury (both inorganic and methyl mercury), POM, HCl, and HF. These HAP represent pollutants that can cause adverse impacts either through direct exposure to HAP in the air or through exposure to HAP that are deposited from the air onto soils and surface waters and then through the environment into the food web. These HAP represent those HAP for which we can conduct a meaningful multipathway or environmental screening risk assessment. For other HAP not included in our screening assessments, the model has not been parameterized such that it can be

used for that purpose. In some cases, depending on the HAP, we may not have appropriate multipathway models that allow us to predict the concentration of that pollutant. The EPA acknowledges that other HAP beyond these that we are evaluating may have the potential to cause adverse effects and, therefore, the EPA may evaluate other relevant HAP in the future, as modeling science and resources allow.

IV. Analytical Results and Proposed Decisions

A. What actions are we taking pursuant to CAA sections 112(d)(2) and 112(d)(3)?

In this action, we are proposing the following pursuant to CAA section 112(d)(2) and (3)²²: (1) adding monitoring and operational requirements for flares used as an APCD and (2) requesting comment on whether the EPA should add requirements and clarifications for pressure relief devices (PRD). The results and proposed decisions based on the analyses performed pursuant to CAA section 112(d)(2) and (3) are presented below.

1. Flares

The EPA is proposing under CAA section 112(d)(2) and (3) to amend the operating and monitoring requirements for flares used as APCDs in the OLD source category because we have determined that the current requirements for flares are not adequate to ensure the level of destruction efficiency needed to conform with the MACT standards for the OLD source category. A flare is a type of APCD used in the OLD source category to control emissions from a single emission source (*i.e.*, a storage tank or a transfer rack) or multiple emission sources (*i.e.*, a

²² The EPA has authority under CAA section 112(d)(2) and (3) to set MACT standards for previously unregulated emission points. The EPA also retains the discretion to revise a MACT standard under the authority of CAA section 112(d)(2) and (3) (see *Portland Cement Ass'n v. EPA*, 665 F.3d 177, 189 (D.C. Cir. 2011), such as when it identifies an error in the original standard. See also *Medical Waste Institute v. EPA*, 645 F. 3d at 426 (upholding the EPA action establishing MACT floors, based on post-compliance data, when originally-established floors were improperly established).

combination of several storage tanks and/or transfer racks). We have determined that 27 flares at 16 OLD facilities would be affected by these proposed operating and monitoring requirements (see the memorandum, *Control Option Impacts for Flares Located in the Organic Liquids Distribution Source Category*, in the docket for this action).

The requirements applicable to flares in the OLD NESHAP are set forth in the General Provisions to 40 CFR part 63 and are cross-referenced in 40 CFR part 63, subpart SS. The OLD NESHAP allows storage tanks and transfer racks to vent through a closed vent system and flare that meet the requirements of 40 CFR part 63, subpart SS. In general, flares used as APCDs at OLD facilities are expected to achieve a minimum destruction efficiency of at least 98 percent by weight, when designed and operated according to the General Provisions. Studies on flare performance, however, indicate that these General Provision requirements are inadequate to ensure proper performance of flares at refineries and other petrochemical facilities (including chemical manufacturing facilities), particularly when either assist steam or assist air is used, but also when no assist is used.²³ The data from the recent studies on flare performance²⁴ clearly indicate that combustion efficiencies begin to deteriorate at combustion net heating values above 200 British thermal units per standard cubic foot (Btu/scf) and that an operating limit of 200 Btu/scf in the flare vent gas, as currently provided in the General Provisions for unassisted flares, does not ensure that these flares will achieve an average destruction efficiency of 98 percent. Therefore, we believe the proposed amendments described in this section are necessary to ensure that OLD facilities that use flares as APCD meet the MACT standards at all times when

²³ Based on review of NEI description fields and a sampling of air permits, we believe the majority of flares at OLD facilities are non-assisted.

²⁴ *Parameters for Properly Designed and Operated Flares*, Docket ID Item No. EPA-HQ-OAR-2010-0682-0191.

controlling HAP emissions. In fact, at least one recent consent decree addresses inefficient flare operations at a large bulk terminal in the OLD source category.²⁵

The General Provisions of 40 CFR 63.11(b) specify that flares are (1) steam-assisted, air-assisted, or non-assisted; (2) operated at all times when emissions may be vented to them; (3) designed for and operated with no visible emissions (except for periods not to exceed a total of 5 minutes during any two consecutive hours); and (4) operated with the presence of a pilot flame at all times. These General Provisions also specify both the minimum heat content of gas combusted in the flare and maximum exit velocity at the flare tip. The General Provisions specify monitoring for the presence of the pilot flame and the operation of a flare with no visible emissions. For other operating limits, 40 CFR part 63, subpart SS requires an initial flare compliance assessment to demonstrate compliance but specifies no monitoring requirements to ensure continuous compliance.

In 2012, the EPA compiled information and test data collected on flares and summarized its preliminary findings on operating parameters that affect flare combustion efficiency (see the technical report, *Parameters for Properly Designed and Operated Flares*, in Docket ID Item No. EPA-HQ-OAR-2010-0682-0191, which has been incorporated into the docket for this action). The EPA submitted the report, along with a charge statement and a set of charge questions, to an external peer review panel.²⁶ The panel, consisting of individuals representing a variety of backgrounds and perspectives (*i.e.*, industry, academia, environmental experts, and industrial flare consultants), concurred with the EPA's assessment that the following three primary factors

²⁵ See the Flare Operational Requirements in the Vopak Terminal Deer Park consent decree, available at: <https://www.epa.gov/enforcement/vopak-north-america-inc-clean-air-act-settlement-agreement>.

²⁶ These documents can also be found at <https://www.epa.gov/stationary-sources-air-pollution/petroleum-refinery-sector-risk-and-technology-review-and-new-source>.

affect flare performance: (1) the flow of the vent gas to the flare; (2) the amount of assist media (e.g., steam or air) added to the flare; and (3) the combustibility of the vent gas/assist media mixture in the combustion zone (i.e., the net heating value, lower flammability limit, and/or combustibles concentration) at the flare tip. However, in response to peer review comments, the EPA performed a validation and usability analysis on all available test data as well as a failure analysis on potential parameters discussed in the technical report as indicators of flare performance. The peer review comments are in the memorandum, *Peer Review of Parameters for Properly Designed and Operated Flares*, available in Docket ID Item No. EPA-HQ-OAR-2010-0682-0193, which has been incorporated into the docket for this action. These analyses resulted in a change to the population of test data the EPA used and helped form the basis for the flare operating limits promulgated in the 2015 Petroleum Refinery Sector final rule at 40 CFR part 63, subpart CC (80 FR 75178). We are also relying on the same analyses and proposing the same operating limits for flares used as APCDs in the OLD source category. The Agency believes, given the results from the various data analyses conducted for the Petroleum Refinery Sector rule (see section II.D of this preamble, which states that the Petroleum Refinery RTR Docket is incorporated by reference into the docket for this action),²⁷ that the operating limits promulgated for flares used in the Petroleum Refinery Sector are also appropriate and reasonable and will ensure flares used as APCDs in the OLD source category meet the HAP removal

²⁷ See technical memorandum, *Flare Performance Data: Summary of Peer Review Comments and Additional Data Analysis for Steam-Assisted Flares*, in Docket ID Item No. EPA-HQ-OAR-2010-0682-0200 for a more detailed discussion of the data quality and analysis. See technical memorandum, *Petroleum Refinery Sector Rule: Operating Limits for Flares*, in Docket ID Item No. EPA-HQ-OAR-2010-0682-0206 for a more detailed discussion of the failure analysis. See technical memorandum, *Flare Control Option Impacts for Final Refinery Sector Rule*, in Docket ID Item No. EPA-HQ-OAR-2010-0682-0748 for additional analyses on flare performance standards based on public comments received on the proposed refinery rule.

efficiency at all times. Therefore, to ensure clarity and consistency in terminology with the Petroleum Refinery Sector rule (80 FR 75178), we are proposing at 40 CFR 63.2380 to directly apply the Petroleum Refinery Sector rule flare definitions and requirements in 40 CFR part 63, subpart CC to flares in the OLD source category with certain clarifications and exemptions as discussed in this section of the preamble.

Currently, the MACT standards in the OLD NESHAP cross-reference the General Provisions at 40 CFR 63.11(b) for the operational requirements for flares used as APCD (through reference of 40 CFR part 63, subpart SS). This proposal specifies all operational and monitoring requirements that are intended to apply to flares used as APCDs in the OLD source category. All of the flare requirements in this proposed rulemaking are intended to ensure compliance with the MACT standards in the OLD NESHAP when using a flare as an APCD.

a. Pilot Flames

This action proposes that flares used as APCDs in the OLD source category operate pilot flame systems continuously when organic HAP emissions are routed to the flare. The OLD NESHAP references the flare requirements in 40 CFR 63.11(b) (through reference of 40 CFR part 63, subpart SS and Table 12 to 40 CFR part 63 subpart EEEE), which specify that a flare used as an APCD should operate with a pilot flame present at all times. Pilot flames are proven to improve flare flame stability, and even short durations of an extinguished pilot could cause a significant reduction in flare destruction efficiency. In this action, we are proposing to remove the cross-reference to the General Provisions and instead cross-reference 40 CFR part 63, subpart CC to include in the OLD NESHAP the existing provisions that flares operate with a pilot flame at all times and be continuously monitored for a pilot flame using a thermocouple or any other equivalent device.

We are also proposing to add a continuous compliance measure that would consider each 15-minute block when there is at least 1 minute where no pilot flame is present when regulated material is routed to the flare as a deviation from the standard. The proposed requirements are set forth in 40 CFR 63.2380 and 40 CFR 63.670(b) and (g). See section IV.A.1.e of this preamble for our rationale for proposing to use a 15-minute block averaging period for determining continuous compliance.

We solicit comment on the proposed revisions regarding flare pilot flames.

b. Visible Emissions

This action proposes that flares used as APCDs in the OLD source category operate with no visible emissions (except for periods not to exceed a total of 5 minutes during any 2 consecutive hours) when organic HAP emissions are routed to the flare. The OLD NESHAP references 40 CFR 63.11(b) (through reference of 40 CFR part 63, subpart SS and Table 12 to 40 CFR part 63, subpart EEEE), which specify that a flare used as an APCD should operate with visible emissions for no more than 5 minutes in a 2-hour period. Owners or operators of these flares are required to conduct an initial performance demonstration for visible emissions using Method 22 of appendix A-7 to 40 CFR part 60 (“Method 22”). We are proposing to remove the cross-reference to the General Provisions and instead cross-reference 40 CFR part 63, subpart CC to include the limitation on visible emissions. We are also proposing to clarify that the initial 2-hour visible emissions demonstration should be conducted the first-time regulated materials are routed to the flare.

With regard to continuous compliance with the visible emissions limitation, we are proposing daily visible emissions monitoring for whenever regulated material is routed to the flare and visible emissions are observed from the flare. On days the flare receives regulated

material, we are proposing that owners or operators of flares monitor visible emissions at a minimum of once per day using an observation period of 5 minutes and Method 22.

Additionally, whenever regulated material is routed to the flare and there are visible emissions from the flare, we are proposing that another 5-minute visible emissions observation period be performed using Method 22, even if the required daily visible emissions monitoring has already been performed. If an employee observes visible emissions, then the owner or operator of the flare would perform a 5-minute Method 22 observation to check for compliance upon initial observation or notification of such event. In addition, in lieu of daily visible emissions observations performed using Method 22, we are proposing that owners and operators be allowed to use video surveillance cameras. We believe that video surveillance cameras would be at least as effective as the proposed daily 5-minute visible emissions observations using Method 22. We are also proposing to extend the observation period for a flare to 2 hours whenever visible emissions are observed for greater than 1 continuous minute during any of the required 5-minute observation periods. Refer to 40 CFR 63.2380 and 40 CFR 63.670(c) and (h) for these proposed requirements.

We solicit comment on the proposed revisions regarding visible emissions.

c. Flare Tip Velocity

This action consolidates provisions related to flare tip velocity. The OLD NESHAP references the flare requirements in 40 CFR 63.11(b) (through reference of 40 CFR part 63, subpart SS and Table 12 to 40 CFR part 63, subpart EEEE), which specify maximum flare tip velocities based on flare type (non-assisted, steam-assisted, or air-assisted) and the net heating value of the flare vent gas. These maximum flare tip velocities are required to ensure that the flame does not “lift off” the flare (*i.e.*, a condition where a flame separates from the tip of the

flare and there is space between the flare tip and the bottom of the flame), which could cause flame instability and/or potentially result in a portion of the flare gas being released without proper combustion. We are proposing to remove the cross-reference to the General Provisions and instead cross-reference 40 CFR part 63, subpart CC to consolidate the specification of maximum flare tip velocity into the OLD NESHAP as a single equation, irrespective of flare type (*i.e.*, steam-assisted, air-assisted, or non-assisted). The proposed flare tip velocity specifications are set forth in 40 CFR 63.2380 and 40 CFR 63.670(d), (i), and (k). We posit that the owner or operator would likely follow the provisions at 40 CFR 63.670(i)(4) and (k)(2)(ii) to determine the flare tip velocity on a 15-minute block average basis, which allows use of a continuous pressure/temperature monitoring system and engineering calculations in lieu of the more intricate monitoring options also specified in 40 CFR part 63, subpart CC. See section IV.A.1.e of this preamble for our rationale for proposing to use a 15-minute block averaging period for determining continuous compliance.

Based on analysis conducted for the Petroleum Refinery Sector final rule, the EPA identified air-assisted test runs with high flare tip velocities that had high combustion efficiencies (see technical memorandum, *Petroleum Refinery Sector Rule: Evaluation of Flare Tip Velocity Requirements*, in Docket ID Item No. EPA-HQ-OAR-2010-0682-0212). These test runs exceeded the maximum flare tip velocity limits for air-assisted flares using the linear equation in 40 CFR 63.11(b)(8). When these test runs were compared with the test runs for non-assisted and steam-assisted flares, the air-assisted flares appeared to have the same operating envelope as the non-assisted and steam-assisted flares. Therefore, for air-assisted flares used as APCDs in the OLD source category, we are proposing to use of the same equation that non-assisted and steam-assisted flares currently use to establish the flare tip velocity operating limit.

Finally, we are also proposing not to include the special flare tip velocity equation in the General Provisions at 40 CFR 63.11(b)(6)(i)(A) for non-assisted flares with hydrogen content greater than 8 percent. This equation, which was developed based on limited data from a chemical manufacturer, has very limited applicability for flares used as APCDs in the OLD source category because it only provides an alternative for non-assisted flares with large quantities of hydrogen. We believe few, if any, flares in the OLD source category control vent gas with large quantities of hydrogen. Nevertheless, we are proposing to allow owners and operators the use of the existing compliance alternative for hydrogen (*i.e.*, a corrected heat content) that is specified in 40 CFR 63.670 which we believe provides a better way for flares used as APCDs in the OLD source category with high hydrogen content to comply with the rule while ensuring proper destruction performance of the flare (refer to the Petroleum Refinery preamble, 80 FR 75178, for further details about the corrected heat content for hydrogen). Therefore, we are proposing to not include this special flare tip velocity equation as a compliance alternative for non-assisted flares used as APCDs in the OLD source category with hydrogen content greater than 8 percent.

We solicit comment on the proposed revisions regarding flare-tip velocity.

d. Net Heating Value of the Combustion Zone Gas

The current requirements for flares in 40 CFR 63.11(b) specify that the flare vent gas meets a minimum net heating value of 200 Btu/scf for non-assisted flares and 300 Btu/scf for air- and steam-assisted flares. The OLD NESHAP references these provisions (through reference of 40 CFR part 63, subpart SS and Table 12 to 40 CFR part 63, subpart EEEE), but neither the General Provisions nor the OLD NESHAP include specific requirements for monitoring the net heating value of the vent gas. Moreover, recent flare testing results indicate that the minimum net

heating value alone does not address instances when the flare may be over-assisted because it only considers the gas being combusted in the flare and nothing else (*e.g.*, no assist media). However, many industrial flares use steam or air as an assist medium to protect the design of the flare tip, promote turbulence for the mixing, induce air into the flame, and operate with no visible emissions. Using excessive steam or air results in dilution and cooling of flared gases and can lead to operating a flare outside its stable flame envelope, thereby reducing the destruction efficiency of the flare. In extreme cases, over-steaming or excess aeration can snuff out a flame and allow regulated material to be released into the atmosphere without complete combustion. As previously noted, we believe the majority of flares at OLD facilities are non-assisted. However, for flares used as APCDs in the OLD source category that are either steam- or air-assisted, it is critical that we ensure the assist media be accounted for. Recent flare test data have shown that the best way to account for situations of over-assisting is to consider the gas mixture properties at the flare tip in the combustion zone when evaluating the ability to combust efficiently. As discussed in the introduction to this section, the external peer review panel concurred with our assessment that the combustion zone properties at the flare tip are critical parameters to know in determining whether a flare will achieve good combustion. The General Provisions, however, solely rely on the net heating value of the flare vent gas.

In this action, in lieu of requiring compliance with the operating limits for net heating value of the flare vent gas in the General Provisions, we are proposing to cross-reference 40 CFR part 63, subpart CC to include in the OLD NESHAP a single minimum operating limit for the net heating value in the combustion zone gas (NHVcz) of 270 Btu/scf during any 15-minute period for steam-assisted, air-assisted, and non-assisted flares used as APCDs in the OLD source category. The proposed requirements are set forth at 40 CFR 63.2380 and 40 CFR 63.670(e) and

(m). The Agency believes, given the results from the various data analyses conducted for the Petroleum Refinery Sector rule, that this NHVcz operating limit promulgated for flares in the Petroleum Refinery Sector source category is also appropriate and reasonable and will ensure flares used as APCDs in the OLD source category meet the HAP destruction efficiencies in the standard at all times when operated in concert with the other proposed flare requirements (*e.g.*, pilot flame, visible emissions, and flare tip velocity requirements) (see the memoranda titled *Petroleum Refinery Sector Rule: Operating Limits for Flares and Flare Control Option Impacts for Final Refinery Sector Rule*, in Docket ID Item Nos. EPA-HQ-OAR-2010-0682-0206 and EPA-HQ-OAR-2010-0682-0748, respectively).

In general, refineries are expected to need a flare gas flow monitor and either a gas chromatograph, total hydrocarbon analyzer, or calorimeter to comply with the final suite of operational and monitoring requirements at 40 CFR 63.670 (primarily because refinery flare gas can be highly variable in composition and flaring events can be unpredictable and episodic in nature). However, flares at OLD facilities control a limited amount of flare vent gas streams compared to more numerous and variable waste streams at petroleum refineries. Given that OLD emission sources are storage tanks and transfer racks, the range of organic liquids being distributed through these emissions sources are likely known and have consistent composition and flow. Therefore, due to the more certain nature of gas streams at OLD facilities, we anticipate that owners or operators of flares in the OLD source category would use process knowledge, engineering calculations, and grab samples as their compliance approach specified at 40 CFR 63.670(j)(6). Instead of continuously monitoring composition and net heating value of the flare vent gas (NHVvg), we anticipate owners and operators would be able to characterize the vent gases that could be routed to the flare based on a minimum of seven grab samples (14 daily

grab samples for continuously operated flares) and determine the NHV_{vg} that will be used in the equation at 40 CFR 63.670(m)(1) for all flaring events (based on the minimum net heating value of the grab samples) to determine NHV_{cz}. We are also proposing to allow engineering estimates to characterize the amount of gas flared and the amount of assist gas (if applicable) introduced into the system. For example, we believe that the use of fan curves to estimate air assist rates would be acceptable. We anticipate that owners or operators of flares at OLD facilities would be able to use the net heating value determined from the initial sampling phase and measured or estimated flare vent gas and assist gas flow rates, if applicable, to demonstrate compliance with the standards. We believe most, if not all, owners or operators of flares in the OLD source category would be able to use this compliance approach.

Finally, we are proposing that owners or operators of flares in the OLD source category that use grab sampling and engineering calculations to determine compliance must still assess compliance with the NHV_{cz} operating limit on a 15-minute block average using the equation at 40 CFR 63.670(m)(1) and cumulative volumetric flows of flare vent gas, assist steam, and premix assist air. See section IV.A.1.e of this preamble for our rationale for proposing to use a 15-minute block averaging period for determining continuous compliance.

We solicit comment on the proposed revisions related to NHV_{cz}.

e. Data Averaging Periods for Flare Gas Operating Limits

Except for the visible emissions operating limits as described in section IV.A.1.b, we are proposing to use a 15-minute block averaging period for each proposed flare operating parameter (*i.e.*, presence of a pilot flame, flare tip velocity, and NHV_{cz}) to ensure that the flare is operated within the appropriate operating conditions. We consider a short averaging time to be the most appropriate for assessing proper flare performance because flare vent gas flow rates and

composition can change significantly over short periods of time. Furthermore, because destruction efficiency can fall precipitously when a flare is controlling vent gases below (or outside) the proposed operating limits, short time periods where the operating limits are not met could seriously impact the overall performance of the flare. Refer to the Petroleum Refinery preambles (79 FR 36880 and 80 FR 75178) for further details supporting why we believe a 15-minute averaging period is appropriate. We solicit comment on this proposed revision.

f. Emergency Flaring

We are not proposing the work practice standards for emergency flaring that are currently allowed at 40 CFR 63.670(o) for refinery flares because we do not believe emergency shutdown situations that could occur at a petroleum refinery would exist for the storage and transfer operations covered by the OLD regulations. Should an emergency occur during an organic liquids transfer, the transfer operation could be halted, which in turn would also stop the flow of gas to the flare. Similarly, tank breathing losses are fairly steady and predictable and, except for a *force majeure* situation, would not produce any rapid increases in gas flow to a flare. We solicit comment on this proposed decision.

g. Impacts of the Flare Operating and Monitoring Requirements

The EPA expects that the newly proposed requirements for flares used as APCDs in the OLD source category will affect 27 flares of various flare tip designs (*e.g.*, steam-assisted, air-assisted, and non-assisted flare tips) that receive flare vent gas flow on a regular basis (*i.e.*, other than during periods of SSM).

Costs were estimated for each flare for a given facility, considering the proposed compliance approach discussed in this section of the preamble. The results of the impact estimates are summarized in Table 2 of this preamble. The baseline emission estimate and the

emission reductions achieved by the proposed rule were estimated by back-calculating from the NEI-reported volatile organic compounds (VOC) and HAP controlled emissions assuming various levels of control (assuming all flares at OLD facilities operate at a combustion efficiency of either 90 percent, 92 percent, or 95 percent instead of 98 percent). We note that the requirements for flares we are proposing in this action will ensure compliance with the MACT standards. As such, these proposed operational and monitoring requirements for flares have the potential to reduce excess emissions from flares by as much as 64 tpy of HAP and 645 tpy of VOC (assuming a baseline control efficiency of 90 percent) or 24 tpy of HAP and 242 tpy of VOC (assuming a baseline control efficiency of 95 percent). The VOC compounds are non-methane, non-ethane total hydrocarbons. According to the modeling file we used to assess risk (see section III.C.1 of this preamble), there are approximately 39 individual HAP compounds (28 organic HAP compounds and 11 other HAP compounds) included in the emission inventory for flares, but many of these are emitted in trace quantities. A little more than half of the HAP emissions from flares are attributable to 1,3-butadiene, cumene, and vinyl acetate. For more detail on the impact estimates, see the technical memorandum, *Control Option Impacts for Flares Located in the Organic Liquids Distribution Source Category*, in Docket ID No. EPA-HQ-OAR-2018-0074.

Table 2. Nationwide Costs of Proposed Amendments to Ensure Proper Flare Performance (2016\$)

Control Description	Total Capital Investment (Million \$)	Total Annualized Costs (Million \$/year)
Flare Operational and Monitoring Requirements	0.19	0.36
Total	0.19	0.36

2. Pressure Relief Devices

The acronym “PRD” means pressure relief device and is common vernacular to describe a variety of devices that release gas to prevent over-pressurization in a system. A PRD does not release emissions during normal operation but is used only to release unplanned, nonroutine discharges whenever the system exceeds a pressure setting. Typically, the EPA considers PRD releases to result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected causes that require immediate venting of gas from process equipment to avoid safety hazards or equipment damage. At OLD operations, the EPA is aware of PRDs installed on storage tanks, transport vehicles (*i.e.*, cargo tank or tank car), and vapor balancing systems.

For the OLD NESHAP, PRDs are not subject to the emission limits in the rule but are subject to work practice standards. Because the EPA has determined for a number of reasons that it is not practicable to measure emissions from a PRD release in any source category, NESHAP rules prescribe work practices instead of emission limits. When the vapor balancing option is used, the OLD NESHAP work practice requires that no PRD on the storage tank or on the cargo tank or tank car shall open during loading or as a result of diurnal temperature changes (*i.e.*, breathing losses). To avoid breathing losses, the valve pressure must be set to no less than 2.5 psia (unless an owner/operator can justify that a different value is sufficient to prevent breathing losses). In addition, the PRD must be monitored quarterly to identify any leaks to the atmosphere while the vent is in the closed position. A leak is defined as an instrument reading of 500 parts per million by volume (ppmv) or greater, and any leak that is detected must be repaired within 5 days. For OLD storage tank operations that comply using allowable methods in the OLD NESHAP other than vapor balancing, the OLD NESHAP requires venting emissions through a

closed vent system to any combination of control devices or fuel gas system or back to process or comply with 40 CFR part 63, subpart WW.

The EPA is proposing to clarify that PRDs on vapor return lines of a vapor balancing system are also subject to the vapor balancing system requirements of 40 CFR 63.2346(a)(4)(iv). We request comments on whether work practices should be adopted for PRDs that are not part of a vapor balancing system and whether work practices similar to those promulgated for petroleum refineries in 40 CFR part 63, subpart CC are necessary and appropriate for OLD operations. We do not believe similar high-pressure events such as those possible on equipment in petroleum refineries are applicable to the storage and transfer operations subject to the OLD NESHAP because we do not expect the kind of conditions that produce high-pressure events at large refinery process equipment (*e.g.*, non-routine evacuation of process equipment) to occur at storage tanks or transfer operations subject to the OLD NESHAP (generally storage and transfer of liquids stored at pressures close to atmospheric pressure). If there are non-vapor balancing system PRDs, we request further information on the nature of these devices, including the following: whether these PRDs are in heavy liquid service; whether they have a design pressure setting of greater than or less than 2.5 pounds per square inch gauge; whether they release only in response to thermal expansion of fluid; and whether they are pilot-operated and balanced bellows PRDs if the primary release valve associated with the PRD is vented through a control system. Finally, we request comment on whether monitoring devices should be required to be installed and operated to ensure the owner and operator is able to demonstrate continuous compliance with the standard at 40 CFR 63.2346(a)(4)(iv) that no PRD shall open during loading or as a result of diurnal temperature changes.

B. What are the results of the risk assessment and analyses?

As described in section III.C of this preamble, for the OLD source category, we conducted an inhalation risk assessment for all HAP emitted and multipathway and environmental risk screening assessments on the PB-HAP emitted. We present results of the risk assessment briefly below and in more detail in the document, *Residual Risk Assessment for the Organic Liquids Distribution Source Category in Support of the 2019 Risk and Technology Review Proposed Rule*, which is available in the docket for this action.

1. Inhalation Risk Assessment Results

Table 3 of this preamble provides a summary of the results of the inhalation risk assessment for the source category. More detailed information on the risk assessment can be found in the risk document, available in the docket for this action.

Table 3. Organic Liquids Distribution (Non-Gasoline) Source Category Inhalation Risk Assessment Results

Number of Facilities ¹	Maximum Individual Cancer Risk (in 1 million) ²	Population at Increased Risk of Cancer \geq 1-in-1 Million	Annual Cancer Incidence (cases per year)	Maximum Chronic Noncancer TOSHI ³	Maximum Screening Acute Noncancer HQ ⁴
157	20	350,000	0.03	0.4	HQ _{REL} = 1 (toluene, formaldehyde, and chloroform)

¹ Number of facilities evaluated in the risk analysis.

² Maximum individual excess lifetime cancer risk due to HAP emissions from the source category.

³ Maximum TOSHI. The target organ system with the highest TOSHI for the source category is respiratory.

⁴ The maximum estimated acute exposure concentration was divided by available short-term threshold values to develop an array of HQ values. HQ values shown use the lowest available acute threshold value, which in most cases is the REL. When an HQ exceeds 1, we also show the HQ using the next lowest available acute dose-response value.

As shown in Table 3 of this preamble, the chronic inhalation cancer risk assessment, based on actual emissions could be as high as 20-in-1 million, with 1,3-butadiene from equipment leaks as the major contributor to the risk. The total estimated cancer incidence from this source category is 0.03 excess cancer cases per year, or one excess case every 33 years.

About 350,000 people are estimated to have cancer risks above 1-in-1 million from HAP emitted from this source category, with about 3,600 of those people estimated to have cancer risks above 10-in-1 million. The maximum chronic noncancer HI value for the source category could be up to 0.4 (respiratory) driven by emissions of chlorine from equipment leaks, and no one is exposed to TOSHI levels above 1.

For the OLD source category, it was determined that actual emissions data are reasonable estimates of the MACT-allowable emissions. The risk results summarized above, based on actual source category emissions, therefore, also describe the risk results based on allowable emissions.

2. Acute Risk Results

Table 3 of this preamble provides the maximum acute HQ (based on the REL) of 1, driven by actual emissions of toluene, formaldehyde, and chloroform. By definition, the acute REL represents a health-protective level of exposure, with effects not anticipated below those levels, even for repeated exposures.

As noted previously, for this source category, the primary emission sources of toluene (storage tanks), formaldehyde (unidentified source), and chloroform (equipment leaks) emissions were each modeled with an hourly emissions multiplier of 10 times the annual emissions rate. The maximum acute HQ reflects the highest value estimated to occur outside facility boundaries. As presented in Table 3 of this preamble, no facilities are estimated to have an acute HQ greater than 1.

3. Multipathway Risk Screening Results

Of the 157 facilities included in the assessment, 24 facilities reported emissions of carcinogenic PB-HAP (POM and arsenic) with six facilities exceeding the Tier 1 screening value of 1. For emissions of the non-carcinogenic PB-HAP (cadmium and mercury), eight facilities

reported emissions with no facility exceeding the Tier 1 screening value of 1 for cadmium or mercury. One facility's emission rates of POM exceeded the screening value by a factor of 9 and a factor of 3 for arsenic. Due to the theoretical construct of the screening model, these factors are not directly translatable into estimates of risk or HQs for these facilities; rather they indicate that the initial multipathway screening assessment does not rule out the potential for multipathway impacts of concern. For facilities that exceeded the Tier 1 multipathway screening threshold emission rate for one or more PB-HAP, we used additional facility site-specific information to perform a Tier 2 assessment and determine the maximum chronic cancer and noncancer impacts for the source category. Based on the Tier 2 multipathway cancer assessment, POM emissions exceeded the Tier 2 cancer screening value by a factor of 4 for the fisher scenario and 6 for the farmer scenario. Arsenic emissions did not exceed the Tier 2 cancer screening value. POM and arsenic combined exceeded the Tier 2 cancer screening value by a factor of 6 for the farmer scenario and a factor of 4 for the gardener scenario.

An exceedance of a screening threshold emission rate in any of the tiers cannot be equated with a risk value or an HQ (or HI). Rather, it represents a high-end estimate of what the risk or hazard may be. For example, a screening threshold emission rate of 2 for a non-carcinogen can be interpreted to mean that we are confident that the HQ would be lower than 2. Similarly, a Tier 2 screening threshold emission rate of 5 for a carcinogen means that we are confident that the risk is lower than 5-in-1 million. Our confidence comes from the conservative, or health-protective, assumptions encompassed in the screening tiers: we choose inputs from the upper end of the range of possible values for the influential parameters used in the screening tiers, and we assume that the exposed individual exhibits ingestion behavior that would lead to a

high total exposure. Further cancer screening was not warranted based upon the conservative nature of the screen.

Tier 2 noncancer screening threshold emission rates for both mercury and cadmium emissions were below 1. Thus, based on the Tier 2 results presented above, additional screening or site-specific assessments were not deemed necessary.

4. Environmental Risk Screening Results

As described in section III.A of this preamble, we conducted an environmental risk screening assessment for the OLD source category for the following pollutants: arsenic, cadmium, hydrochloric acid, hydrofluoric acid, lead, mercury (methyl mercury and mercuric chloride), and POM.

In the Tier 1 screening analysis for PB-HAP (other than lead, which was evaluated differently), arsenic, cadmium, and mercury emissions had no exceedances of any of the ecological benchmarks evaluated. POM emissions had a Tier 1 exceedance at one facility for a no-effect level (sediment community) by a maximum screening value of 6.

A Tier 2 screening analysis was performed for POM emissions. In the Tier 2 screening analysis, there were no exceedances of any of the ecological benchmarks evaluated for POM.

For lead, we did not estimate any exceedances of the secondary lead NAAQS. For HCl and HF, the average modeled concentration around each facility (*i.e.*, the average concentration of all off-site data points in the modeling domain) did not exceed any ecological benchmark. In addition, each individual modeled concentration of HCl and HF (*i.e.*, each off-site data point in the modeling domain) was below the ecological benchmarks for all facilities.

Based on the results of the environmental risk screening analysis, we do not expect an adverse environmental effect as a result of HAP emissions from this source category.

5. Facility-Wide Risk Results

The facility-wide chronic MIR and TOSHI are based on emissions from all sources at the identified facilities (both MACT and non-MACT sources).

The results indicate that 61 facilities have a facility-wide cancer MIR greater than or equal to 1-in-1 million, 25 of those facilities have a facility-wide cancer MIR greater than or equal to 10-in-1-million, 10 facilities have a facility-wide cancer MIR greater than or equal to 100-in-1 million, and one facility has a facility-wide cancer MIR greater than or equal to 1,000-in-1 million. There are 21 additional facilities in the facility-wide dataset that are not in the MACT actual dataset. For these facilities, permits or other information show applicability to OLD, but no 2014 NEI information regarding HAP emissions for these facilities reasonably match with any equipment that could be subject to the OLD NESHAP. These facilities are not included in Table 3 of this preamble but are included in the population risk estimates in this paragraph. The maximum facility-wide cancer MIR is 2,000-in-1 million, primarily driven by ethylene oxide from a non-category source. The total estimated cancer incidence from the whole facility is 0.9 excess cancer cases per year, or one excess case in every 1.1 years. Approximately 5,300,000 people are estimated to have cancer risks above 1-in-1 million from exposure to HAP emitted from both MACT and non-MACT sources at the facilities in this source category. Approximately 1,500,000 of these people are estimated to have cancer risks above 10-in-1 million, with 88,500 people estimated to have cancer risks above 100-in-1 million, and 1,000 people estimated to have cancer risks above 1,000-in-1 million. The maximum facility-wide TOSHI (kidney) for the source category is estimated to be 10, mainly driven by emissions of trichloroethylene from a non-category source. Approximately 1,100 people are exposed to

noncancer HI levels above 1, based on facility-wide emissions from the facilities in this source category.

Regarding the facility-wide risks due to ethylene oxide (described above), which are driven by emission sources that are not part of the OLD source category, we intend to evaluate those facility-wide estimated emissions and risks further and may address these in a separate future action, as appropriate. In particular, the EPA is addressing ethylene oxide based on the results of the latest National Air Toxics Assessment (NATA) released in August 2018, which identified the chemical as a potential concern in several areas across the country (NATA is the Agency's nationwide air toxics screening tool, designed to help the EPA and state, local, and tribal air agencies identify areas, pollutants, or types of sources for further examination). The latest NATA estimates that ethylene oxide significantly contributes to potential elevated cancer risks in some census tracts across the U.S. (less than 1 percent of the total number of tracts). These elevated risks are largely driven by an EPA risk value that was updated in late 2016. The EPA will work with industry and state, local, and tribal air agencies as the EPA takes a two-pronged approach to address ethylene oxide emissions: (1) Reviewing and, as appropriate, revising CAA regulations for facilities that emit ethylene oxide—starting with air toxics emissions standards for miscellaneous organic chemical manufacturing facilities and commercial sterilizers; and (2) conducting site-specific risk assessments and, as necessary, implementing emission control strategies for targeted high-risk facilities. The EPA will post updates on its work to address ethylene oxide on its website at: <https://www.epa.gov/ethylene-oxide>.

6. What demographic groups might benefit from this regulation?

To examine the potential for any environmental justice issues that might be associated with the source category, we performed a demographic analysis, which is an assessment of risk

to individual demographic groups of the populations living within 5 km and within 50 km of the facilities. In the analysis, we evaluated the distribution of HAP-related cancer and noncancer risk from the OLD source category across different demographic groups within the populations living near facilities.²⁸

The results of the demographic analysis are summarized in Table 4 of this preamble below. These results, for various demographic groups, are based on the estimated risk from actual emissions levels for the population living within 50 km of the facilities.

Table 4. OLD Demographic Risk Analysis Results- 50 km Study Area Radius

		Population with Cancer Risk Greater than or Equal to 1-in-1 Million	Population with HI Greater than 1
	Nationwide	Source Category	
Total Population	317,746,049	350,000	0
	White and Minority by Percent		
White	62%	26%	0%
Minority	38%	74%	0%
	Minority by Percent		
African American	12%	13%	0%
Native American	0.8%	0.3%	0%
Hispanic or Latino (includes white and nonwhite)	18%	58%	0%
Other and Multiracial	7%	2%	0%
	Income by Percent		
Below Poverty Level	14%	32%	0%
Above Poverty Level	86%	68%	0%
	Education by Percent		
Over 25 and without a High School Diploma	14%	32%	0%

²⁸ Demographic groups included in the analysis are: White, African American, Native American, other races and multiracial, Hispanic or Latino, adults without a high school diploma, people living below the poverty level, people living two times the poverty level, and linguistically isolated people.

		Population with Cancer Risk Greater than or Equal to 1-in-1 Million	Population with HI Greater than 1
Over 25 and with a High School Diploma	86%	68%	0%
	Linguistically Isolated by Percent		
Linguistically Isolated	6%	14%	0%

The results of the OLD source category demographic analysis indicate that emissions from the source category expose approximately 350,000 people to a cancer risk at or above 1-in-1 million and no one with a chronic noncancer TOSHI greater than 1.

Regarding cancer risk, the specific demographic results indicate that the percentage of the population potentially impacted by OLD emissions, as shown in Table 4 of this preamble, is greater than its corresponding nationwide percentage for the following demographics: Minority, African American, Hispanic or Latino, Below Poverty Level, Over 25 and without a High School Diploma, and Linguistically Isolated. The remaining demographic group percentages are the same or less than the corresponding nationwide percentages.

The methodology and the results of the demographic analysis are presented in a technical report, *Risk and Technology Review - Analysis of Demographic Factors For Populations Living Near Organic Liquids Distribution Source Category Operations*, available in the docket for this action.

C. What are our proposed decisions regarding risk acceptability, ample margin of safety, and adverse environmental effect?

1. Risk Acceptability

As noted in section III of this preamble, the EPA sets standards under CAA section 112(f)(2) using “a two-step standard-setting approach, with an analytical first step to determine an 'acceptable risk' that considers all health information, including risk estimation uncertainty, and includes a presumptive limit on MIR of approximately 1-in-10 thousand.” (54 FR 38045, September 14, 1989). In this proposal, the EPA estimated risks based on actual emissions from OLD operations located at major sources of HAP, and we considered these in determining acceptability.

The estimated inhalation cancer risk to the individual most exposed to actual or allowable emissions from the source category is 20-in-1 million. The estimated incidence of cancer due to inhalation exposures is 0.03 excess cancer cases per year, or one excess case every 33 years. Approximately 350,000 people face an increased cancer risk at or above 1-in-1 million due to inhalation exposure to actual HAP emissions from this source category. The estimated maximum chronic noncancer TOSHI from inhalation exposure for this source category is 0.4. The screening assessment of worst-case inhalation impacts indicates a worst-case maximum acute HQ of 1 for toluene, formaldehyde, and chloroform based on the 1-hour REL for each pollutant.

Potential multipathway human health risks were estimated using a three-tier screening assessment of the PB-HAP emitted by facilities in this source category. The only pollutants with elevated Tier 1 and Tier 2 screening values are POM (cancer). The Tier 2 screening value for POM was 6 which means that we are confident that the cancer risk is lower than 6-in-1 million. For noncancer, the Tier 2 screening value for both cadmium and mercury is less than 1.

In determining whether risks are acceptable for this source category, the EPA considered all available health information and risk estimation uncertainty as described above. The risk

results indicate that both the actual and allowable inhalation cancer risks to the individual most exposed are well below 100-in-1 million, which is the presumptive limit of acceptability. In addition, the highest chronic noncancer TOSHI is well below 1, indicating low likelihood of adverse noncancer effects from inhalation exposures. The maximum acute HQ for all pollutants is 1 based on the REL for toluene, formaldehyde, and chloroform. There are also low risks associated with ingestion, with the highest cancer risk lower than 6-in-1 million and the highest noncancer hazard below 1, based on a Tier 2 multipathway assessment.

Considering all of the health risk information and factors discussed above, including the uncertainties discussed in section III of this preamble, the EPA proposes that the risks are acceptable for this source category.

2. Ample Margin of Safety Analysis

As directed by CAA section 112(f)(2), we conducted an analysis to determine whether the current emissions standards provide an ample margin of safety to protect public health. Under the ample margin of safety analysis, the EPA considers all health factors evaluated in the risk assessment and evaluates the cost and feasibility of available control technologies and other measures (including the controls, measures, and costs reviewed under the technology review) that could be applied to this source category to further reduce the risks (or potential risks) due to emissions of HAP identified in our risk assessment. In this analysis, we considered the results of the technology review, risk assessment, and other aspects of our MACT rule review to determine whether there are any emission reduction measures necessary to provide an ample margin of safety with respect to the risks associated with these emissions.

Our risk analysis indicated the risks from the source category are acceptable for both cancer and noncancer health effects, and in this ample margin of safety analysis, we considered

all of the available health information along with the cost and feasibility of available HAP control measures. Under the technology review, we identified more stringent storage tank and leak requirements, and we determined that these requirements are cost effective. However, for this ample margin of safety analysis, we evaluated the estimated change in risks, and while there was some decrease in both the MIR and the number of people exposed to cancer risks above 1-in-1 million, we determined that the current NESHAP already provides an ample margin of safety to protect public health due primarily to the baseline risk levels. We note, however, that we are proposing to adopt the cost-effective measures under the technology review, as discussed in section IV.D of this preamble.

D. What are the results and proposed decisions based on our technology review?

1. Storage Vessels

Storage vessels are used for storing liquid feedstocks, intermediates, or finished products for distribution at OLD facilities. Most storage vessels are vertical cylindrical designs with either a fixed or floating roof. Emissions from storage vessels occur due to tank content expansions (breathing losses) and tank content movements (working losses).

Under the current OLD NESHAP at 40 CFR 63.2346 and Table 2 to subpart EEEE of part 63, the owner or operator of an existing or new storage tank meeting certain capacity and average annual true vapor pressure of organic HAP criteria must reduce the total organic HAP emissions from the storage tank by one of three control options. The first option is to reduce total organic HAP emissions by 95 percent by weight using a closed vent system routed to a (1) flare, (2) non-flare APCD, or (3) fuel gas system or process meeting applicable requirements of 40 CFR part 63, subpart SS. The second option is to comply with vapor balancing requirements. The third option is to either install an IFR with proper seals or install an external floating roof

with proper seals and enhanced fitting controls meeting applicable requirements of 40 CFR part 63, subpart WW. Table 5 of this preamble outlines the current rule applicability thresholds for these storage tank control requirements.

Table 5. Current OLD NESHAP Storage Tank Capacity and Average True Vapor Pressure Thresholds for Control

Existing/new source and tank capacity	Tank contents and average true vapor pressure of total Table 1 to subpart EEEE of part 63 organic HAP
Existing affected source with a capacity ≥ 18.9 cubic meters (5,000 gallons) and < 189.3 cubic meters (50,000 gallons).	Not crude oil and if the annual average true vapor pressure of the stored organic liquid is ≥ 27.6 kilopascals (4.0 psia) and < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil.
Existing affected source with a capacity ≥ 189.3 cubic meters (50,000 gallons).	Not crude oil and if the annual average true vapor pressure of the stored organic liquid is < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil.
Reconstructed or new affected source with a capacity ≥ 18.9 cubic meters (5,000 gallons) and < 37.9 cubic meters (10,000 gallons).	Not crude oil and if the annual average true vapor pressure of the stored organic liquid is ≥ 27.6 kilopascals (4.0 psia) and < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil.
Reconstructed or new affected source with a capacity ≥ 37.9 cubic meters (10,000 gallons) and < 189.3 cubic meters (50,000 gallons).	Not crude oil and if the annual average true vapor pressure of the stored organic liquid is ≥ 0.7 kilopascals (0.1 psia) and < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil.
Reconstructed or new affected source with a capacity ≥ 189.3 cubic meters (50,000 gallons).	Not crude oil and if the annual average true vapor pressure of the stored organic liquid is < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil.
Existing, reconstructed, or new affected source meeting any of the capacity criteria specified above.	Not crude oil or condensate and if the annual average true vapor pressure of the stored organic liquid is ≥ 76.6 kilopascals (11.1 psia).

As part of our technology review for storage vessels, we identified the following emission reduction options: (1) revising the average true vapor pressure thresholds of the OLD

storage tanks for existing sources requiring control to align with those of the National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries (40 CFR part 63, subpart CC) and National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (“HON,” 40 CFR part 63, subpart G) where the thresholds are lower and (2) in addition to requirements specified in option 1, requiring leak detection and repair (LDAR) using Method 21 with a 500 ppm leak definition for fittings on fixed roof storage vessels (*e.g.*, access hatches) that are not subject to the 95 percent by weight control requirements.

We identified option 1 as a development in practices, processes, and control technologies because it reflects requirements and applicability thresholds that are widely applicable to existing tanks that are often collocated with OLD sources and which have been found to be cost effective for organic liquid storage tanks. The OLD NESHAP applicability thresholds for new sources are more stringent than other similar rules. Therefore, we are not proposing any changes to the capacity and average true vapor pressure thresholds for new source storage tanks. Table 6 of this preamble lists the proposed capacity and average true vapor pressure thresholds for control. Note that we also propose to clarify that condensate and crude oil are considered to be the same material with respect to OLD applicability (see section IV.E.3 of this preamble for more details on this clarification).

Table 6. Proposed OLD NESHAP Storage Tank Capacity and Annual Average True Vapor Pressure Thresholds for Control Under Control Option¹

Existing/new source and tank capacity	Tank contents and average true vapor pressure of total Table 1 to subpart EEEE of part 63 organic HAP
Existing affected source with a capacity ≥ 18.9 cubic meters (5,000 gallons) and < 75.7 cubic meters (20,000 gallons).	Not crude oil or condensate and if the annual average true vapor pressure of the stored organic liquid is ≥ 27.6 kilopascals (4.0 psia) and < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil or condensate.

Existing/new source and tank capacity	Tank contents and average true vapor pressure of total Table 1 to subpart EEEE of part 63 organic HAP
Existing affected source with a capacity ≥ 75.7 cubic meters (20,000 gallons) and < 151.4 cubic meters (40,000 gallons).	Not crude oil or condensate and if the annual average true vapor pressure of the stored organic liquid is ≥ 13.1 kilopascals (1.9 psia) and < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil or condensate
Existing affected source with a capacity ≥ 151.4 cubic meters (40,000 gallons) and < 189.3 cubic meters (50,000 gallons).	Not crude oil or condensate and if the annual average true vapor pressure of the stored organic liquid is ≥ 5.2 kilopascals (0.75 psia) and < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil or condensate.
Existing affected source with a capacity ≥ 189.3 cubic meters (50,000 gallons).	Not crude oil or condensate and if the annual average true vapor pressure of the stored organic liquid is < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil or condensate.
Reconstructed or new affected source with a capacity ≥ 18.9 cubic meters (5,000 gallons) and < 37.9 cubic meters (10,000 gallons).	Not crude oil and if the annual average true vapor pressure of the stored organic liquid is ≥ 27.6 kilopascals (4.0 psia) and < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil or condensate.
Reconstructed or new affected source with a capacity ≥ 37.9 cubic meters (10,000 gallons) and < 189.3 cubic meters (50,000 gallons).	Not crude oil and if the annual average true vapor pressure of the stored organic liquid is ≥ 0.7 kilopascals (0.1 psia) and < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil or condensate.
Reconstructed or new affected source with a capacity ≥ 189.3 cubic meters (50,000 gallons).	Not crude oil and if the annual average true vapor pressure of the stored organic liquid is < 76.6 kilopascals (11.1 psia).
	The stored organic liquid is crude oil or condensate.
Existing, reconstructed, or new affected source meeting any of the capacity criteria specified above .	Not crude oil or condensate and if the annual average true vapor pressure of the stored organic liquid is ≥ 76.6 kilopascals (11.1 psia).

Option 2 is an improvement in practices because these monitoring methods have been required by other regulatory agencies since promulgation of the OLD NESHAP to confirm the vapor tightness of tank seals and gaskets to ensure compliance with the standards. Further, we have observed leaks on roof deck fittings through monitoring with Method 21 that could not be found with visual observation techniques. See the memorandum, *Clean Air Act Section 112(d)(6)*

Technology Review for Storage Tanks Located in the Organic Liquids Distribution Source

Category, available in the docket to this action for further background on this control option.

This proposed option would apply to any fixed roof storage tank that is part of an OLD affected source that is not subject to the 95 percent by weight and equivalent controls according to the proposed thresholds above. The proposed requirements of option 2 would apply to new and existing sources for storage tanks having a capacity of 3.8 cubic meters (1,000 gallons) or greater that store organic liquids with an annual average true vapor pressure of 10.3 kilopascals (1.5 psia) or greater.

Table 7 of this preamble presents the nationwide impacts for the two options considered to be cost effective and the expected reduction in modeled emissions from storage tank emission points. We also evaluated other storage tank control options beyond these two, including installation of geodesic domes on external floating roof tanks, during our technology review, but did not find them to be generally cost effective and, therefore, have not discussed them in detail here. Details on the assumptions and methodologies for all options evaluated are provided in the memorandum, *Clean Air Act Section 112(d)(6) Technology Review for Storage Tanks Located in the Organic Liquids Distribution Source Category*, available in the docket to this action.

Based on our review of the costs and emission reductions for each of the options, we consider control options 1 and 2 to be cost-effective strategies for further reducing emissions from storage tanks at OLD facilities and are proposing to revise the OLD NESHAP requirements for storage tanks pursuant to CAA section 112(d)(6). We solicit comment on the proposed revisions related to storage tanks based on technology review under CAA section 112(d)(6).

Table 7. Nationwide Emissions Reductions and Costs of Control Options Considered for Storage Tanks at OLD Sources¹ (2016\$)

Control Option	Total Capital	Total Annualized	Total Annualized	VOC Emission	HAP Emission	VOC Cost	VOC Cost	HAP Cost	HAP Cost
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	Investment (\$)	Costs w/o Credits (\$/year)	Costs with Credits (\$/year)	Reductions (tpy)	Reductions (tpy)	Effectiveness w/o Credits (\$/ton)	Effectiveness with Credits (\$/ton)	Effectiveness w/o Credits (\$/ton)	Effectiveness with Credits (\$/ton)
1	2,380,000	309,000	127,000	202	117	1,500	630	2,600	1,100
2	0	30,000	(118,000)	164	95	180	(720)	320	(1,200)

¹ Recovery credits represent the savings in product that would not be lost from tank losses or fitting leaks.

2. Equipment Leaks

Emissions from equipment leaks occur in the form of gases or liquids that escape to the atmosphere through many types of connection points (*e.g.*, threaded fittings) or through the moving parts of certain types of process equipment during normal operation. Equipment regulated by the OLD NESHAP includes pumps, PRDs (as part of a vapor balancing system), sampling collection systems, and valves that operate in organic liquids service for at least 300 hours per year. The OLD NESHAP provides the option for equipment to meet the control requirements of either 40 CFR part 63, subparts TT (National Emission Standards for Equipment Leaks - Control Level 1 Standards), UU (National Emission Standards for Equipment Leaks - Control Level 2 Standards), or H (National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks). The equipment leak requirements vary by equipment (component) type and by requirement (*i.e.*, subpart TT, UU, or H) but generally require LDAR programs using Method 21 to monitor at certain frequencies (*e.g.*, monthly, quarterly, every 2 quarters, annually) and specify leak definitions (*e.g.*, 500 ppm, 1,000 ppm, 10,000 ppm) if the component is in gas or light liquid service. The LDAR provisions for components in heavy liquid service require sensory monitoring and the use of Method 21 to monitor leaks identified through sensory monitoring.

Our technology review for equipment leaks identified two developments in LDAR practices and processes: (1) adding connectors to the monitored equipment component types at a leak definition of 500 ppm (*i.e.*, requiring connectors to be compliant with either 40 CFR part 63,

subparts UU or H) and (2) eliminating the option of 40 CFR part 63, subpart TT for valves, pumps, and sampling connection systems, essentially requiring compliance with 40 CFR part 63, subpart UU or H.

These two proposed practices and processes are already in effect at sources that are often collocated with OLD NESHAP sources, such as in the National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks (40 CFR part 63, subpart H). Further, we have found that several OLD sources are permitted using various state LDAR regulations that incorporate equipment leak provisions at the 40 CFR part 63, subpart UU requirement level or above and also require connector monitoring as part of the facility's air permit requirements.

For equipment leaks control option 1, the baseline is that connectors are not controlled using a LDAR program since the current OLD NESHAP does not include them as equipment to be monitored. For control option 2, the impact is lowering the leak definitions for valves and pumps to account for the differences in 40 CFR part 63, subpart UU from the requirements of 40 CFR part 63, subpart TT. That is, valves in light liquid service would drop from a leak definition of 10,000 ppmv to 500 ppmv, and pumps would drop from 10,000 ppmv to 1,000 ppmv. Sampling connection requirements are the same for the two subparts.

Table 8 of this preamble presents the nationwide impacts for the two options considered and the expected reduction in modeled emissions from equipment leak emission points. During our technology review, we also evaluated additional options for controlling equipment leaks, which would have had lower leak definitions for valves and pumps than the two options identified here. Details on the assumptions and methodologies for all options evaluated are provided in the memorandum, *Clean Air Act Section 112(d)(6) Technology Review for*

Equipment Leaks Located in the Organic Liquids Distribution Source Category, available in the docket to this action.

Based on our review of the costs and emission reductions for each of the options, we consider control option 1 to be a cost-effective strategy for further reducing emissions from equipment leaks at OLD facilities and are proposing to revise the OLD NESHAP for equipment leaks pursuant to CAA section 112(d)(6). We are not proposing option 2 because we consider this option to not be cost effective. We solicit comment on the proposed revisions related to equipment leaks based on technology review under CAA section 112(d)(6).

Table 8. Nationwide Emissions Reduction and Costs of Control Options Considered for Equipment Leaks at OLD Sources¹ (2016\$)

Control Option	Total Capital Investment (\$)	Total Annualized Costs w/o Credits (\$/year)	Total Annualized Costs with Credits (\$/year)	VOC Emission Reductions (tpy)	HAP Emission Reductions (tpy)	VOC Cost Effectiveness w/o Credits (\$/ton)	VOC Cost Effectiveness with Credits (\$/ton)	HAP Cost Effectiveness w/o Credits (\$/ton)	HAP Cost Effectiveness with Credits (\$/ton)
1	1,640,000	567,000	490,000	300	174	1,900	1,600	3,300	2,800
2	2,509,000	565,000	516,000	54	31	10,500	9,500	18,000	16,500

¹ Recovery credits are the savings in product that would not be lost from equipment due to leaks.

3. Transfer Racks

Transfer racks are process equipment that transfer liquids from storage vessels into cargo tanks (*i.e.*, tank trucks and railcars). Emissions from transfer racks occur as the organic liquid is loaded into the cargo tank, thereby displacing the vapor space in the tank above the liquid's surface. These emissions can be affected primarily by the turbulence (*i.e.*, splashing) during loading, temperature of the liquids, and volume transferred.

The current OLD NESHAP requires control of transfer racks in organic liquid service through a variety of means, but with an equivalent control efficiency of 98 percent. This control efficiency was determined during the NESHAP rulemaking to be achievable by well-designed and operated combustion devices (69 FR 5054, February 3, 2004). We evaluated the thresholds

for control in the current rule against the 2012 proposed uniform standards for storage vessels and transfer operations (see Docket ID No. EPA-HQ-2010-0871) and found that the current thresholds for controls are equivalent or more stringent than those in proposed in 2012.

We also considered an option that would apply 98-percent control requirements for transfer racks to large throughput transfer racks transferring organic liquid materials that are 5 percent or less by weight HAP. We analyzed the population of transfer racks and identified potentially affected transfer racks. Considering the costs of control and the HAP emissions for these racks, this option was also found to be cost ineffective. Therefore, the EPA is not proposing to change the emission standard for transfer racks. For more information, see the *Clean Air Act Section 112(d)(6) Technology Review for Transfer Racks Located in the Organic Liquids Distribution Source Category* memorandum in the docket for this action.

4. Fenceline Monitoring Alternative

The EPA is proposing a fenceline monitoring program as an alternative compliance option for certain requirements being proposed in this action. The fenceline monitoring option would be available to existing and new OLD facilities in lieu of implementing certain proposed requirements for storage vessels and equipment leaks. OLD operations located at facilities that are required to implement a fenceline monitoring program under the Petroleum Refinery NESHAP at 40 CFR part 63, subpart CC would not be eligible to use this alternative compliance option. The rationale for excluding petroleum refineries from exercising the fenceline monitoring alternative is because these facilities already implement a fenceline monitoring program for benzene and because only a few refineries have OLD operations, which contribute a small proportion of the refineries overall HAP emissions inventory. We believe petroleum refineries should continue to implement fenceline monitoring under the Petroleum Refinery NESHAP.

We are proposing optional fenceline monitoring as an advancement in monitoring practice because of the significant quantities of HAP emissions originating from OLD operations that are fugitive in nature, and as such, are impractical to directly measure (for example, fixed roof tanks, external floating roof tanks, equipment leaks, uncontrolled transfer operations). Direct measurement of fugitive emissions from sources such as storage vessels and equipment leaks can be costly and difficult, especially if required to be deployed on all OLD sources of fugitive emissions throughout the source category.²⁹ This is a major reason why fugitive emissions associated with OLD operations are generally estimated using factors and correlations rather than by direct measurement. For example, equipment leak emissions are estimated using emissions factors or correlations between leak rates and concentrations from Method 21 instrument monitoring. Relying on these kinds of approaches introduces uncertainty into the emissions inventory for fugitive emission sources.

As part of the technology review, we evaluated developments in processes, practices, and control technologies for measuring and controlling fugitive emissions from individual emission points at OLD sources. For storage vessels, as discussed in section IV.D.1 of this preamble, we are proposing to lower the vapor pressure threshold for emission control for storage tanks at existing sources having capacities of 20,000 to 50,000 gallons and we are proposing to require

²⁹ In general, testing fugitive sources requires methodologies for which the EPA has not developed standard test methods and for which there are few contractors that can perform such testing. While it may be possible to obtain data on some fugitive sources, the testing requires intense planning and analysis by highly qualified experts in order to limit the data uncertainty and isolate the fugitive sources. These techniques often require very expensive equipment to obtain results. Additionally, by their nature, fugitive sources have more variable emissions than point sources, making it more difficult to determine representative testing conditions. Point source emissions occur at all times that the process operates and are routed through a stack where mass emissions may be determined by measuring concentration and flow, whereas equipment such as connectors only exhibit emissions when there is an issue that needs to be addressed.

monitoring of components on fixed roof storage tanks. For equipment leaks, as discussed in section IV.D.1 of this preamble, we are proposing to include connectors in the LDAR program.

We are proposing that owners and operators of OLD operations may implement a fenceline monitoring program in lieu of the proposed technology review amendments for storage tanks and equipment leaks discussed above. In summary, if an owner or operator opts to implement the fenceline monitoring alternative standard, then the facility would not need to perform connector monitoring for equipment leaks, would not need to perform annual inspections on storage tank closures, and would not need to install controls for storage tanks between 20,000 and 50,000 gallons pursuant to Table 2b. Instead of complying with these requirements, the facility would need to develop a detailed inventory of allowable HAP emissions from all equipment at the facility, including identification of which equipment are in OLD service; determine which HAP to monitor based on emissions from OLD equipment; run the HEM-3 model to determine the annual average modeled concentration of each HAP; set an action level based on the modeled concentration of selected HAP; submit the modeling input file and results to the EPA for approval; deploy passive sample tubes on the fenceline of your facility every 14 days using Method 325A of appendix A to 40 CFR part 63 (“Method 325A”); have the passive tubes analyzed for the selected HAP using Method 325B of appendix A to 40 CFR part 63 (“Method 325B”); calculate the difference of the highest recorded concentration minus the lowest recorded concentration (*i.e.*, delta C) for each sample period; calculate a rolling annual average delta C for each selected HAP; report recorded concentrations and calculated delta C values to the EPA electronically; and, if the rolling annual average delta C is greater than the action level established from the modeling effort, then the facility must perform a root cause analysis and take corrective action to bring the annual average delta C to below the action level.

Like the petroleum refinery fenceline monitoring results, the EPA plans to make the reported monitored data publicly available. Details about this optional fenceline monitoring program are described in the subsections below: (a) Developments in Monitoring Technology and Practices; (b) Analytes to Monitor; (c) Concentration Action Level; (d) Siting and Sampling Requirements for Fenceline Monitors; (e) Reporting Monitoring Results; (f) Reducing Monitoring Frequency; (g) Corrective Action Requirements; and (h) Costs Associated with Fenceline Monitoring Alternatives.

The EPA is proposing this option for several reasons: (1) there is concern that the uncertainty surrounding estimated fugitive emissions from OLD operations may be underestimating actual fugitive emissions from OLD operations; (2) the proposed fenceline monitoring program would provide owners and operators a flexible alternative to appropriately manage fugitive emissions of HAP from OLD operations if they are significantly greater than estimated values; and (3) the proposed frequency of monitoring time-integrated samples on a 2-week basis would provide an opportunity for owners and operators to detect and manage any spikes in fugitive emissions sooner than they might have been detected from equipment subject to annual or quarterly monitoring in the proposed amendments or from equipment that is not subject to equipment leak monitoring in the proposed rule.

The EPA believes the proposed fenceline monitoring alternative would be equivalent to the proposed technology review revisions it would replace. The EPA is proposing to establish the trigger for root cause analysis and corrective action based on modeled HAP concentrations emitted from OLD equipment and considering the expected concentrations of HAP at the fenceline from all equipment at the facility. The HAP to be monitored are those having the most HAP emissions from OLD equipment at the facility including those that are emitted from

equipment that would have been subject to the proposed requirements for storage tanks and equipment leaks had the owner or operator of the facility not opted to implement the alternative fenceline monitoring. If actual annual average delta C is at or below the modeled values considering allowable emissions adjusted to reflect compliance with the connector monitoring and proposed amendments to the storage tank requirements, then fugitive emissions from the facility having OLD operations would be considered equivalent to the level of control that would be required by these proposed amendments. If the actual annual average delta C is above the action level, then the facility must perform root cause analysis and, if the cause is from emissions at the facility, then the facility would be required to reduce emissions to a level so that the annual average delta C is below the action level.

As discussed above, we believe the proposed fenceline monitoring option would achieve an equivalent level of HAP emissions reductions as the proposed amendments to the storage tank and equipment leak requirements that this program would replace and would be appropriate under CAA section 112(d)(6) to propose as an alternative equivalent requirement to address fugitive emissions from OLD sources.

Regarding uncertainty in emissions, emissions of HAP from OLD operations are often fugitive, that is, emissions that are not routed through a stack or cannot reasonably be measured. Emissions from storage tanks that are not routed through a closed vent system to control are usually calculated using equations in Chapter 7 of the EPA's *Compilation of Air Emissions Factors* (AP-42).³⁰ Equipment leaks are often calculated using presumptive emission factors for different types of equipment (*e.g.*, valves, pump seals, sampling connections, connectors) in specific types of service (gas, light liquid, heavy liquid) using the EPA's *Protocol for Equipment*

³⁰ <https://www3.epa.gov/ttn/chief/ap42/ch07/index.html>.

*Leak Emission Estimates.*³¹ There is uncertainty surrounding these emission factors. Actual emissions may be different if the equipment is operating at different conditions than those used to set the emission factors. A large proportion of HAP emissions from OLD operations are inventoried by calculating emissions using these emission factors and protocols. By monitoring fenceline concentrations of HAP and comparing the annual average concentrations to the concentrations that would be expected from modeling the emissions calculated using emission factors, the owner or operator would be able to determine if the emissions from the facility are close to those that were calculated in the inventory used to generate the action level. In this way, fenceline monitoring is a method that can help evaluate whether the uncertainty surrounding the calculations used to estimate fugitive emissions at a particular facility is a concern.

Regarding the opportunity to detect spikes in fugitive emissions earlier, the 2-week sample time is more frequent than the LDAR requirements in the proposed rule (quarterly, annual) and more frequent than the proposed floating roof inspection requirements (annual for closure devices on fixed roof tanks, annual top-side floating roof inspections, and close-up inspections of floating roof seals when the storage tanks are emptied and degassed). This provides an opportunity to detect problems sooner than they otherwise might be detected. Also, there is an opportunity for the monitors to detect emissions from equipment that would not otherwise be detected with the requirements for storage tanks and equipment leaks in the proposed amendments to this rule. Fenceline monitoring would provide the opportunity to identify any significant increase in emissions (*e.g.*, a large equipment leak or a significant tear in a storage vessel seal) in a more timely manner, which would allow owners or operators to identify and reduce HAP emissions more rapidly than if a source relied solely on the existing

³¹ <https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=P1006KE4.txt>.

monitoring and inspection methods required by the OLD NESHAP. Small or short-term increases in emissions are not likely to raise the fenceline concentration above the action level, so a fenceline monitoring approach will generally target larger emission sources that have the most impact on the ambient pollutant concentration near the facility.

Further, selection of the HAP to monitor are based on the emissions from OLD operations that would be subject to these proposed amended requirements (connector monitoring, tank closure inspections, and revised storage tank vapor pressure thresholds for control) at the facility. The action level would be set using modeled concentrations of these HAP emissions from all equipment at the facility and would represent an equivalent level of control to the proposed enhancements to the storage tanks and equipment leak requirements. Therefore, we conclude that, over the long term, the HAP emission reductions achieved by complying with the fenceline monitoring alternative would be equivalent to, or better than, compliance with the enhanced standards being proposed here because of the potential for earlier detection of significant emission leaks and the potential to address fugitive emissions that are not being reflected in the HAP emission inventories due to the uncertainty surrounding how those emissions are calculated.

The following proposed requirements would not apply if a source chooses to comply with the fenceline monitoring alternative: (1) lower threshold (*i.e.*, tank vapor pressure and volume) for requiring emission controls on tanks expressed in proposed Table 2b of 40 CFR part 63 subpart EEEE; (2) inspection of closure devices on fixed roof tanks expressed at proposed 40 CFR 63.2343(e)(4); and (3) LDAR monitoring for connectors expressed at proposed 40 CFR 63.2346(l)(1). The proposed revisions, if finalized, would not change a facility's responsibility to comply with the emissions standards and other requirements of the OLD NESHAP as currently

in effect and the amendments to the rule other than the three identified above in this paragraph. We solicit comment on the proposed revisions related to the fenceline monitoring alternative based on technology review under CAA section 112(d)(6).

a. Developments in Monitoring Technology and Practices

The fenceline monitoring alternative is a practicable NESHAP requirement because of developments in monitoring technology. The EPA reviewed the available literature and identified several methods for measuring fenceline emissions. The methods analyzed were (1) passive diffusive tube monitoring networks; (2) active monitoring station networks; (3) ultraviolet differential optical absorption spectroscopy (UV-DOAS) fenceline monitoring; (4) open-path Fourier transform infrared spectroscopy (FTIR); (5) Differential Absorption Lidar (DIAL) monitoring; and (6) solar occultation flux monitoring. We considered these monitoring methods as developments in practices under CAA section 112(d)(6) for purposes of all fugitive emission sources at OLD operations.

While each of these methods has its own strengths and weaknesses, we conclude that a passive diffusive tube monitoring network is the most appropriate fenceline monitoring technology that has been demonstrated and is applicable to OLD operations. We conclude that DIAL and solar occultation flux can be used for short-term studies, but these methods are not appropriate for continuous monitoring. While active monitoring stations, UV-DOAS, and FTIR are technically feasible, passive diffusive tubes have been demonstrated to be feasible and commercially available with substantially lower capital and operating costs. We, therefore, are proposing to require the use of passive diffusive tubes as the monitoring technology for the fenceline monitoring alternative for OLD operations. Our evaluation of the six alternative fugitive monitoring technologies is summarized in the proposal preamble for the Petroleum

Refinery Sector RTR at 79 FR 36880 (June 30, 2014). For this action, we have not evaluated any other fugitive emissions monitoring techniques beyond those described in the Petroleum Refinery Sector RTR. While the discussion in the proposal preamble of the Petroleum Refinery Sector RTR is in the context of emissions from a petroleum refinery, passive tube monitoring is equally applicable to HAP emitted by OLD operations. The method for conducting fenceline monitoring using this technology is prescribed in Methods 325A and 325B. The method is applicable to any VOC that has been properly validated under Method 325B. Table 12.1 of Method 325B lists benzene and 17 additional organic compounds having verified method performance and validated uptake rates for specified sorbents used in the passive sampling tubes. Owners and operators of an OLD operation can obtain approval from the EPA for additional HAP compounds or different sorbents by conducting validation testing described in Addendum A of Method 325B or in one of the following national/international standard methods: ISO 16017-2:2003(E), American Society for Testing and Materials (ASTM) D6196-03 (Reapproved 2009), BS EN 14662-4:2005, or a method reported in the peer-reviewed open literature.

b. Analytes to Monitor

For facilities that opt to implement fenceline monitoring at 40 CFR 63.2348(b)(2), we are proposing to specify how to determine the HAP to monitor and the action level that determines when root cause and corrective action must be taken. There is a wide variety of organic liquids stored at different facilities in the nation. Accordingly, we do not believe there is a single HAP that is suitable to universally represent an accurate indicator of the performance of tank and other fugitive emission control strategies across all OLD facilities. To ensure an effective monitoring framework, we are proposing that a facility that chooses the fenceline monitoring alternative would monitor simultaneously for at least the number of HAP that will represent the HAP

emissions from the OLD operations at the facility. We are proposing that each facility would monitor for the organic HAP that has the most annual allowable emissions from OLD operations. If this HAP is emitted from the equipment that would have been subject to the proposed new requirements (*i.e.*, the connectors subject to the equipment leak provisions at proposed 40 CFR 63.2346(l)(1) and the storage tanks that would have been subject to the control criteria at proposed Table 2b of 40 CFR part 63 subpart EEEE or 40 CFR 63.2343(e)(4)), then monitoring that HAP at the fenceline is sufficient. Otherwise, the facility must monitor that HAP as well as additional HAP necessary to ensure that the HAP being emitted from sources that would have been subject to additional control are monitored through the fenceline program, *i.e.*, each piece of OLD equipment that would have been subject to controls emits at least one HAP monitored at the fenceline. We are soliciting comment on whether one of the analytes should be set as benzene, which is a pollutant common to most terminals subject to the OLD NESHAP. We are also soliciting comment on whether different criteria should be established to determine which analytes should be monitored and reported.

c. Concentration Action Level

We are proposing at 40 CFR 63.2348(b)(3), the method by which the facility would determine the action level for each monitored HAP. The action level is compared to the annual average delta C to determine whether a root cause analysis, and potentially corrective action to reduce emissions, is triggered. The action level would be set for each HAP as an air concentration, expressed in micrograms per cubic meter, equal to the highest modeled fenceline concentration for the selected HAP.

As input to the modeling, each facility would be required to prepare an inventory of their allowable emissions assuming full compliance with the final revised OLD NESHAP developed

from this regulatory action. To ensure consistency and equity among affected sources, each facility would follow guidance developed by the EPA for preparing the emissions inventory and conducting modeling using the HEM-3 model, which contains an atmospheric dispersion model and meteorological data. A draft of the proposed guidance is available for review and comment in the docket for this proposed action (see *Draft Guidance on Determination of Analytes and Action Levels for Fenceline Monitoring of Organic Liquids Distribution Sources*).

In order to be eligible for the fenceline monitoring option, we are proposing the monitored HAP's site-specific action level derived from the modeling must be at least 5 times greater than the method detection limit for the HAP. This requirement will ensure that sources are not unreasonably put into a corrective action routine due solely to the relationship between the action level and the method detection limit. For any 2-week sampling period, if the lowest recorded value falls below the method detection limit for an analyte, then for the purposes of calculating the delta C, a zero is used. Also, if all sample results for any 2-week sample period are below the method detection limit, then you must use the method detection limit as the highest sample result for the purposes of calculating the delta C, effectively making delta C equal to the method detection limit. Therefore, if the action level is set to a value too close to the method detection limit, then achieving an annual average delta C at or below the action level could become difficult because only a few detectable readings could bring the annual average delta C above the action level when those readings are averaged with the method level of detection for the other sample periods. Therefore, requiring an action level of at least 5 times greater than the method limit of detection would alleviate this difficulty and prevent cases where root cause analysis and corrective action are required simply due to the way detectable concentrations are averaged with the method limit of detection which is close to the action level. To reduce the

likelihood of this occurring, we are setting an appropriate requirement that the method detection limit be well below the action level for the HAP.

We propose that owners or operators of an existing affected OLD operation would conduct modeling and submit the results and proposed action levels to the Administrator no later than 1 year after the effective date of the final rule, then deploy samplers and begin collecting data no later than 2 years after the effective date of the final rule. For new sources, if an owner or operator elects to conduct a fenceline monitoring program, we are proposing that the owner or operator would (1) model and submit for EPA approval action levels within 3 months after establishment of allowable emissions in the title V permit, (2) begin monitoring upon commencement of operation, (3) submit the first report no later than 45 days following the end of the calendar quarter in which 1 full year of monitoring data was collected, and (4) subsequently submit monitoring reports by the end of each subsequent calendar quarter.

d. Siting and Sampling Requirements for Fenceline Monitors

The EPA is proposing at 40 CFR 63.2348(c) specification of the passive monitoring locations. Facilities that use the fenceline monitoring alternative must deploy and operate monitors by following the requirements of Methods 325A and 325B. Method 325A requires deployment of a minimum of 12 monitors around the fenceline, although the minimum number and the placement of monitors depends on the size, shape, and linear distance around the facility, as well as the proximity of emissions sources to the property boundary, as described in the method. Method 325A also specifies the requirements for sample collection, while Method 325B specifies the requirements for sample preparation and analysis.

The EPA is proposing that passive fenceline monitors would be deployed and sampling would commence starting 2 years after the effective date of this final rule. Passive sorbent tubes

would be used to collect 2-week time-integrated samples. For each 2-week period, the facility would determine a delta C, calculated as the lowest sorbent tube sample value subtracted from the highest sorbent tube sample value. This approach is intended to subtract out the estimated contribution from background emissions that do not originate from the OLD facility. The delta C for the most recent 26 sampling periods would be averaged to calculate an annual average delta C. The annual average delta C would be determined on a rolling basis, meaning that it is updated with every new sample (*i.e.*, every 2 weeks, a new annual average delta C is determined from the most recent 26 sampling periods). This rolling annual average would be compared against the relevant concentration action level.

e. Reporting Monitoring Results

After 1 full year of monitoring, the fenceline monitoring reports would be submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI), to the EPA on a quarterly frequency. Because the concentration action level is compared to an annual average delta C, monitoring data from 1 full year is needed to assess compliance with the requirements of the alternative fenceline compliance option. Therefore, we are proposing that OLD owners and operators would not be required to submit the initial fenceline monitoring report until after 1 full year of data is available. The initial report would be required to be submitted no later than 45 days following the end of the calendar quarter in which 1 full year of monitoring data is obtained. Each subsequent compliance report would include monitoring data collected for the calendar quarter following the data reported in the previous report and would be due no later than 45 days following the end of the calendar quarter covered by the monitoring. For example, if the effective date of this rule is March 27, 2020, then the establishment of the action levels must be submitted to the EPA or the delegated authority by March 27, 2021;

fenceline monitoring would begin by March 27, 2022; the first report would include data collected from March 27, 2022, through March 31, 2023; and the first report would be submitted by May 15, 2023. At that point, quarterly reporting would commence; the next report would include data collected from April 1, 2023, through June 30, 2023, and would be submitted by August 14, 2023. See section IV.E.2 of this preamble for further discussion on reporting fenceline monitoring data.

f. Reducing Monitoring Frequency

To reduce the burden of monitoring, we are proposing provisions at 40 CFR 63.2348(e)(3) that would allow OLD owners or operators to reduce the frequency of fenceline monitoring at sampling locations where ambient air concentrations are consistently well below the fenceline concentration action level for all analytes. Specifically, we are allowing owners or operators to monitor every other 2-week period (*i.e.*, skip period monitoring) if over a 2-year period, each sample collected at a specific monitoring location is at or below one tenth of the action level for each analyte. If every sample collected from that sampling location during the subsequent 2 years is at or below one tenth of the action level, the monitoring frequency may be reduced from every other sampling period to once every sixth sampling period (approximately quarterly). After an additional 2 years, the monitoring can be reduced to once every thirteenth sampling period (semiannually) and finally to annually after another 2 years, provided the samples continue to be at or below one tenth of the action level during all sampling events at that location. If at any time a sample for a monitoring location that is monitored at a reduced frequency returns a concentration greater than one tenth the action level, the owner or operator must return to the original sampling requirements for 1 quarter (monitor every 2 weeks for the next six monitoring periods for that location). If every sample collected during that quarter is at

or below one tenth the action level, then the sampling frequency reverts back to the reduced monitoring frequency for that monitoring location; if not, then the sampling frequency reverts back to the original monitoring frequency, with samples being taken every 2-week period.

g. Corrective Action Requirements.

If at any time the annual average delta C exceeds the action level for any of the monitored HAP, then a root cause analysis is required to determine the source of the emissions that caused the exceedance and whether corrective action is needed to return monitored delta C concentrations to below the relevant action level. As described previously, the EPA is proposing that the owner or operator analyze the samples and compare the rolling annual average fenceline concentration, adjusted to remove the estimated background emissions, to the concentration action level. This section summarizes the corrective action requirements in this proposed rule.

We are proposing that the calculation of the rolling annual average delta C for each monitored HAP must be completed within 45 days after the completion of each 2-week sampling period. If the rolling annual average delta C exceeds the respective concentration action level for any monitored HAP, the facility must, within 5 days of determining the concentration action level has been exceeded, initiate a root cause analysis to determine the primary cause, and any other contributing cause(s), of the exceedance. The facility must complete the root cause analysis and implement corrective action within 45 days of initiating the root cause analysis. We are not proposing specific controls or corrections that would be required when the concentration action level is exceeded because the cause of an exceedance could vary greatly from facility to facility and episode to episode, since many different sources emit fugitives. Rather, we are proposing to allow facilities to determine, based on their own analysis of their operations, the action that must

be taken to reduce air concentrations at the fenceline to levels at or below the concentration action level.

If, upon completion of the corrective action described above, the owner or operator exceeds the action level for the next 2-week sampling period following the completion of a first set of corrective actions, the owner or operator would be required to develop and submit a corrective action plan that would describe the corrective actions completed to date. The plan would include a schedule for implementation of emission reduction measures that the owner or operator can demonstrate as soon as practical. The plan would be submitted to the Administrator within 60 days of an exceedance occurring during the next 2-week sampling period following the completion of the initial round of corrective action. The corrective action plan does not need to be approved by the Administrator. The owner or operator is not deemed out of compliance with the concentration action level, provided that the appropriate corrective action measures are taken according to the time frame detailed in the corrective action plan.

We anticipate that the fenceline monitoring requirements and associated corrective action provisions would provide an alternative compliance option to reduce exposure to HAP that we believe would not pose an unreasonable burden on OLD operations. Assuming the inventories and associated modeling conducted by the OLD operators are accurate, we expect that few, if any, facilities will need to engage in required corrective action. We do, however, expect that facilities may identify “poor-performing” sources (*e.g.*, those with unusual leaks) from the fenceline monitoring data and, based on this additional information, will take action to reduce HAP emissions before they otherwise would have been aware of the issue through existing inspection and enforcement measures.

In some instances, a high fenceline concentration may be affected by a non-OLD emission source that is collocated within the property boundary. The likely instances of this situation would be leaks from equipment or storage vessels from processes that are subject to the HON (40 CFR part 63, subparts F, G, H), the Miscellaneous Organic Chemical Manufacturing NESHAP (40 CFR part 63, subpart FFFF), or the NESHAP for Bulk Gasoline Terminals (40 CFR part 63, subpart R). Whenever the action level is exceeded, we are proposing that the OLD owner or operator must take whatever corrective action is needed to reduce the relevant HAP air concentration to below the action level concentration, including corrective actions for any contributing sources that are under common ownership or common control of the OLD operation and that are within the plant site boundary. We conclude that requiring corrective action for all commonly owned or controlled equipment is reasonable because the fenceline alternative is an optional control strategy and would likely be selected if the OLD facility determined that the fenceline alternative provides an economic advantage or potential cost savings or if the facility otherwise wishes to perform fenceline monitoring as a more effective and flexible way to manage fugitive emissions. In a situation where collocated equipment is not under common ownership or control of the OLD owner or operator, then the rule provisions for adjusting for background HAP concentrations, previously discussed in this section of the preamble, would apply.

h. Costs Associated with Fenceline Monitoring Alternatives

The cost for fenceline monitoring is dependent on the sampling frequency and the number of monitoring locations needed based on the size and geometry of the facility. For typical storage terminals subject to the OLD NESHAP, we assume the size of each facility would be less than 750 acres and the number of monitoring sites to be no more than 18 based on the

specifications in Methods 325A and 325B. We use the same approach to estimate costs as outlined in the June 2015 technical memorandum, *Fenceline Monitoring Impact Estimates for Final Rule*, from the Petroleum Refinery Sector RTR, also available in the docket for this action. We estimate the first-year installation and equipment costs for the passive tube monitoring system could cost up to \$95,370. We estimate that annualized costs for ongoing monitoring to facilities that choose to implement this alternative compliance option would be up to \$35,000 per year per facility, and total annualized costs would be up to \$45,000 per year per facility. These figures are expressed in year 2016\$.

The primary goal of a fenceline monitoring network is to ensure that owners and operators properly monitor and manage fugitive HAP emissions. Because we are proposing a concentration action level that each facility derives by modeling fenceline HAP concentrations after full compliance with the proposed and existing requirements of the OLD NESHAP, as amended by this proposed action, the fenceline concentration action level would be set at levels that each facility in the category can meet. Therefore, we do not project any additional HAP emission reductions beyond the proposed requirements that the alternative fenceline monitoring compliance option would achieve. However, if an owner or operator has underestimated the fugitive emissions from one or more sources (*e.g.*, a leak develops or a tank seal or fitting fails), then a fenceline monitoring system would likely identify those excess emissions earlier than under current and proposed amended monitoring requirements. The fenceline monitoring system would ensure that HAP emissions in excess of those projected would be addressed, potentially more completely and quickly than the requirements replaced by implementing the fenceline monitoring. We note that any costs for a fugitive monitoring system would be offset, to some

extent, by product recovery because addressing these leaks more quickly has the potential to reduce product losses.

E. What other actions are we proposing?

In addition to the proposed actions described above, we are proposing additional revisions to the NESHAP. We are proposing revisions to the SSM provisions of the MACT rule in order to ensure that they are consistent with the Court decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), which vacated two provisions that exempted sources from the requirement to comply with otherwise applicable CAA section 112(d) emission standards during periods of SSM. We also are proposing various other changes to require electronic reporting of emissions test results, and to clarify text or correct typographical errors, grammatical errors, and cross-reference errors. Our analyses and proposed changes related to these issues are discussed below.

1. SSM Requirements

In its 2008 decision in *Sierra Club v. EPA*, 551 F.3d 1019 (D.C. Cir. 2008), the Court vacated portions of two provisions in the EPA's CAA section 112 regulations governing the emissions of HAP during periods of SSM. Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), holding that under section 302(k) of the CAA, emissions standards or limitations must be continuous in nature and that the SSM exemption violates the CAA's requirement that some CAA section 112 standards apply continuously.

a. Proposed Elimination of the SSM Exemption

We are proposing the elimination of the SSM exemption in this rule which appears at 40 CFR 63.2378(b). Consistent with *Sierra Club v. EPA*, we are proposing standards in this rule that

apply at all times. We are also proposing several revisions to Table 12 to 40 CFR part 63, subpart EEEE (the General Provisions Applicability Table, hereafter referred to as the “General Provisions table to subpart EEEE”) as is explained in more detail below. For example, we are proposing at 40 CFR 63.2350(c) to eliminate the incorporation of the General Provisions’ requirement that the source develop an SSM plan. We also are proposing to eliminate and revise certain recordkeeping and reporting requirements related to the SSM exemption as further described below. In addition, we are proposing to make the portion of the “deviation” definition in 40 CFR 63.2406 that specifically addresses SSM periods no longer applicable beginning 180 days after publication of the final rule in the **Federal Register**. Finally, because 40 CFR part 63, subpart EEEE requires closed vent systems and APCDs to meet certain requirements of 40 CFR part 63, subpart SS, we are proposing at 40 CFR 63.2346(l) to make portions of 40 CFR part 63, subpart SS (those applicable references related to the SSM exemption) no longer applicable.

The EPA has attempted to ensure that the provisions we are proposing to eliminate are inappropriate, unnecessary, or redundant in the absence of the SSM exemption. We are specifically seeking comment on whether we have successfully done so.

In proposing the standards in this rule, the EPA has taken into account startup and shutdown periods and, for the reasons explained below, has not proposed alternate standards for those periods.

We are proposing that, emissions from startup and shutdown activities must be included when determining if all the standards are being attained. As currently proposed in 40 CFR 63.2378(e), you must be in compliance with the emission limitations (including operating limits) in this subpart “at all times,” except during periods of nonoperation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies.

Emission reductions for transfer rack operations are typically achieved by routing vapors to an APCD such as a flare, thermal oxidizer, or carbon adsorber. It is common practice in this source category to start an APCD prior to startup of the emissions source it is controlling, so the APCD would be operating before emissions are routed to it. We expect APCDs would be operating during startup and shutdown events in a manner consistent with normal operating periods, and that these APCDs will be operated to maintain and meet the monitoring parameter operating limits set during the performance test. We do not expect startup and shutdown events to affect emissions from storage vessels or equipment leaks. Working and breathing losses from storage vessels are the same regardless of whether the process is operating under normal operating conditions or if it is in a startup or shutdown event. Leak detection programs associated with equipment leaks are in place to detect leaks, and, therefore, it is inconsequential whether the process is operating under normal operating conditions or is in startup or shutdown.

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations. Malfunctions, in contrast, are neither predictable nor routine. Instead they are, by definition sudden, infrequent and not reasonably preventable failures of emissions control, process, or monitoring equipment. (40 CFR 63.2) (Definition of malfunction). The EPA interprets CAA section 112 as not requiring emissions that occur during periods of malfunction to be factored into development of CAA section 112 standards and this reading has been upheld as reasonable by the Court in *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 606-610 (2016). Under CAA section 112, emissions standards for new sources must be no less stringent than the level "achieved" by the best controlled similar source and for existing sources generally must be no less stringent than the average emission limitation "achieved" by the best performing 12 percent of sources in the category. There is nothing in CAA section 112 that directs the

Agency to consider malfunctions in determining the level “achieved” by the best performing sources when setting emission standards. As the Court has recognized, the phrase “average emissions limitation achieved by the best performing 12 percent of” sources “says nothing about how the performance of the best units is to be calculated.” *Nat'l Ass'n of Clean Water Agencies v. EPA*, 734 F.3d 1115, 1141 (D.C. Cir. 2013). While the EPA accounts for variability in setting emissions standards, nothing in CAA section 112 requires the Agency to consider malfunctions as part of that analysis. The EPA is not required to treat a malfunction in the same manner as the type of variation in performance that occurs during routine operations of a source. A malfunction is a failure of the source to perform in a “normal or usual manner” and no statutory language compels the EPA to consider such events in setting CAA section 112 standards.

As the Court recognized in *U.S. Sugar Corp.*, accounting for malfunctions in setting standards would be difficult, if not impossible, given the myriad different types of malfunctions that can occur across all sources in the category and given the difficulties associated with predicting or accounting for the frequency, degree, and duration of various malfunctions that might occur. *Id.* at 608 (“the EPA would have to conceive of a standard that could apply equally to the wide range of possible boiler malfunctions, ranging from an explosion to minor mechanical defects. Any possible standard is likely to be hopelessly generic to govern such a wide array of circumstances”). As such, the performance of units that are malfunctioning is not “reasonably” foreseeable. See, e.g., *Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C. Cir. 1999) (“The EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem. We generally defer to an agency's decision to proceed on the basis of imperfect scientific information, rather than to 'invest the resources to conduct the perfect study.'”). See also, *Weyerhaeuser v. Costle*, 590 F.2d 1011, 1058 (D.C. Cir. 1978) (“In the nature of things, no

general limit, individual permit, or even any upset provision can anticipate all upset situations. After a certain point, the transgression of regulatory limits caused by ‘uncontrollable acts of third parties,’ such as strikes, sabotage, operator intoxication or insanity, and a variety of other eventualities, must be a matter for the administrative exercise of case-by-case enforcement discretion, not for specification in advance by regulation.”). In addition, emissions during a malfunction event can be significantly higher than emissions at any other time of source operation. For example, if an APCD with 99-percent removal goes off-line as a result of a malfunction (as might happen if, for example, the bags in a baghouse catch fire) and the emission unit is a steady state type unit that would take days to shut down, the source would go from 99-percent control to zero control until the APCD was repaired. The source’s emissions during the malfunction would be 100 times higher than during normal operations. As such, the emissions over a 4-day malfunction period would exceed the annual emissions of the source during normal operations. As this example illustrates, accounting for malfunctions could lead to standards that are not reflective of (and significantly less stringent than) levels that are achieved by a well-performing non-malfunctioning source. It is reasonable to interpret CAA section 112 to avoid such a result. The EPA’s approach to malfunctions is consistent with CAA section 112 and is a reasonable interpretation of the statute.

Although no statutory language compels the EPA to set standards for malfunctions, the EPA has the discretion to do so where feasible. For example, in the Petroleum Refinery Sector RTR, the EPA established a work practice standard for unique types of malfunction that result in releases from PRDs or emergency flaring events because the EPA had information to determine that such work practices reflected the level of control that applies to the best performing sources (80 FR 75178, 75211-14, December 1, 2015). The EPA will consider whether circumstances

warrant setting standards for a particular type of malfunction and, if so, whether the EPA has sufficient information to identify the relevant best performing sources and establish a standard for such malfunctions. We also encourage commenters to provide any such information.

In the event that a source fails to comply with the applicable CAA section 112(d) standards as a result of a malfunction event, the EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. The EPA would also consider whether the source's failure to comply with the CAA section 112(d) standard was, in fact, sudden, infrequent, not reasonably preventable, and was not instead caused in part by poor maintenance or careless operation. 40 CFR 63.2 (Definition of malfunction).

If the EPA determines in a particular case that an enforcement action against a source for violation of an emission standard is warranted, the source can raise any and all defenses in that enforcement action and the federal district court will determine what, if any, relief is appropriate. The same is true for citizen enforcement actions. Similarly, the presiding officer in an administrative proceeding can consider any defense raised and determine whether administrative penalties are appropriate.

In summary, the EPA's interpretation of the CAA and, in particular, section 112, is reasonable and encourages practices that will avoid malfunctions. Administrative and judicial procedures for addressing exceedances of the standards fully recognize that violations may occur despite good faith efforts to comply and can accommodate those situations. *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 606-610 (2016).

Finally, in keeping with the elimination of the SSM exemption, we are proposing at 40 CFR 63.2346(m) to remove the use of SSM exemption provisions located in subparts referenced by the OLD NESHAP (*i.e.*, 40 CFR part 63, subparts H, SS, and UU) when the owner or operator is demonstrating compliance with the OLD NESHAP.

b. Proposed Revisions Related to the General Provisions Applicability Table

40 CFR 63.2350(d) General duty. We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.6(e)(1)(i) by changing the “yes” in column 4 to a “no.” 40 CFR 63.6(e)(1)(i) describes the general duty to minimize emissions. Some of the language in that section is no longer necessary or appropriate in light of the elimination of the SSM exemption. We are proposing instead to add general duty regulatory text at 40 CFR 63.2350(d) that reflects the general duty to minimize emissions while eliminating the reference to periods covered by an SSM exemption. The current language in 40 CFR 63.6(e)(1)(i) characterizes what the general duty entails during periods of SSM. With the elimination of the SSM exemption, there is no need to differentiate between normal operations, startup and shutdown, and malfunction events in describing the general duty. Therefore, the language the EPA is proposing for 40 CFR 63.2350(d) does not include that language from 40 CFR 63.6(e)(1)(i).

We are also proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.6(e)(1)(ii) by changing the “yes” in column 4 to a “no.” 40 CFR 63.6(e)(1)(ii) imposes requirements that are not necessary with the elimination of the SSM exemption or are redundant with the general duty requirement being added at 40 CFR 63.2350(d).

The proposed language in 40 CFR 63.2350(d) would require that the owner or operator operate and maintain any affected source, including APCD and monitoring equipment, at all times to minimize emissions. For example, in the event of an emission capture system or APCD malfunction for a controlled operation, to comply with the proposed new language in 40 CFR 63.2350(d), the facility would need to cease the controlled operation as quickly as practicable to ensure that excess emissions during emission capture system and APCD malfunctions are minimized.

SSM Plan. We are proposing to revise the General Provisions table to subpart EEEE (table 12) entry for 40 CFR 63.6(e)(3) by changing the “yes” in column 4 to a “no.” Generally, these paragraphs require development of an SSM plan and specify SSM recordkeeping and reporting requirements related to the SSM plan. As noted, the EPA is proposing to remove the SSM exemptions. Therefore, affected units will be subject to an emission standard during such events. The applicability of a standard during such events will ensure that sources have ample incentive to plan for and achieve compliance and thus the SSM plan requirements are no longer necessary.

Compliance with standards. We are proposing to revise the General Provisions table to subpart EEEE (table 12) entry for 40 CFR 63.6(f)(1) by changing the “yes” in column 4 to a “no.” The current language of 40 CFR 63.6(f)(1) exempts sources from non-opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club v. EPA* vacated the exemptions contained in this provision and held that the CAA requires that section 112 standards generally apply continuously. Consistent with *Sierra Club v. EPA*, the EPA is proposing to revise standards in this rule to apply at all times.

We are proposing to revise the General Provisions table to subpart EEEE (table 12) entry for 40 CFR 63.6(h)(1) by changing the “yes” in column 4 to a “no.” The current language of 40 CFR 63.6(h)(1) exempts sources from opacity standards during periods of SSM. As discussed above, the Court in *Sierra Club v. EPA* vacated the exemptions contained in this provision and held that the CAA requires that some section 112 standards apply continuously. Consistent with *Sierra Club v. EPA*, the EPA is proposing to revise standards in this rule to apply at all times.

40 CFR 63.2354(b)(6) Performance testing. We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.7(e)(1) by changing the “yes” in column 4 to a “no.” We are also proposing to remove a similar requirement at 40 CFR 63.2354(b)(5). 40 CFR 63.7(e)(1) describes performance testing requirements. The EPA is instead proposing to add a performance testing requirement at 40 CFR 63.2354(b)(6). The performance testing requirements we are proposing to add differ from the General Provisions performance testing provisions in several respects. The proposed regulatory text does not include the language in 40 CFR 63.7(e)(1) that restated the SSM exemption and language that precluded startup and shutdown periods from being considered “representative” for purposes of performance testing. The proposed performance testing provisions will not allow performance testing during startup or shutdown. As in 40 CFR 63.7(e)(1), performance tests conducted under this subpart should not be conducted during malfunctions because conditions during malfunctions are often not representative of normal operating conditions. Also, the EPA is proposing to add language at 40 CFR 63.2354(b)(6) that requires the owner or operator to record the process information that is necessary to document operating conditions during the test and include in such record an explanation to support that such conditions represent normal operation. 40 CFR 63.7(e)(1) requires that the owner or operator make available to the Administrator upon

request such records “as may be necessary to determine the condition of the performance test,” but does not specifically require the information to be recorded. The regulatory text the EPA is proposing to add to this provision builds on that requirement and makes explicit the requirement to record the information.

Monitoring. We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.8(a)(4) by changing the “yes” in column 4 to a “no.” Refer to section IV.A.1 of this preamble for discussion of this proposed revision.

We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entries for 40 CFR 63.8(c)(1)(i) and (iii) by changing the “yes” in column 4 to a “no.” The cross-references to the general duty and SSM plan requirements in those subparagraphs are not necessary in light of other requirements of 40 CFR 63.8 that require good air pollution control practices (40 CFR 63.8(c)(1)) and that set out the requirements of a quality control program for monitoring equipment (40 CFR 63.8(d)).

We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.8(d)(3) by changing the “yes” in column 4 to a “no.” The final sentence in 40 CFR 63.8(d)(3) refers to the General Provisions’ SSM plan requirement which is no longer applicable. The EPA is proposing to add to the rule at 40 CFR 63.2366(c) text that is identical to 40 CFR 63.8(d)(3) except that the final sentence is replaced with the following sentence: “The program of corrective action should be included in the plan required under 40 CFR 63.8(d)(2).”

We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.10(b)(2)(ii) by changing the “yes” in column 4 to a “no.” 40 CFR 63.10(b)(2)(ii) describes the recordkeeping requirements during a malfunction. The EPA is proposing to add such requirements to 40 CFR 63.2390(f). The regulatory text we are proposing to add differs

from the General Provisions it is replacing in that the General Provisions require the creation and retention of a record of the occurrence and duration of each malfunction of process, air pollution control, and monitoring equipment. The EPA is proposing that this requirement apply to any failure to meet an applicable standard and is requiring that the source record the date, time, and duration of the failure rather than the “occurrence.” The EPA is also proposing to add to 40 CFR 63.2390(f) a requirement that sources keep records that include a list of the affected source or equipment and actions taken to minimize emissions, an estimate of the quantity of each regulated pollutant emitted over the standard for which the source failed to meet the standard, and a description of the method used to estimate the emissions. Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process parameters. The EPA is proposing to require that sources keep records of this information to ensure that there is adequate information to allow the EPA to determine the severity of any failure to meet a standard, and to provide data that may document how the source met the general duty to minimize emissions when the source has failed to meet an applicable standard.

We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.10(b)(2)(iv) by changing the “yes” in column 4 to a “no.” When applicable, the provision requires sources to record actions taken during SSM events when actions were inconsistent with their SSM plan. The requirement is no longer appropriate because SSM plans will no longer be required. The requirement previously applicable under 40 CFR 63.10(b)(2)(iv)(B) to record actions to minimize emissions and record corrective actions is now applicable by reference to 40 CFR 63.2390(f)(3).

We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.10(c)(15) by changing the “yes” in column 4 to a “no.” When applicable, the provision allows an owner or operator to use the affected source's SSM plan or records kept to satisfy the recordkeeping requirements of the SSM plan, specified in 40 CFR 63.6(e), to also satisfy the requirements of 40 CFR 63.10(c)(10) through (12). The EPA is proposing to eliminate this requirement because SSM plans would no longer be required, and, therefore, 40 CFR 63.10(c)(15) no longer serves any useful purpose for affected units.

40 CFR 63.2386 Reporting. We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.10(d)(5) by changing the “yes” in column 4 to a “no.” Similarly, we are also proposing that the references to this specific provision (*i.e.*, 40 CFR 63.10(d)(5)) at 40 CFR 63.2386(c)(5) and Table 11 to subpart EEEE would no longer be applicable. 40 CFR 63.10(d)(5) describes the reporting requirements for SSM. To replace the General Provisions reporting requirement, the EPA is proposing to add reporting requirements to 40 CFR 63.2386(d)(1)(xiii). The replacement language differs from the General Provisions requirement in that it eliminates periodic SSM reports as a stand-alone report. We are proposing language that requires sources that fail to meet an applicable standard at any time to report the information concerning such events in the semi-annual compliance report already required under this rule. We are proposing that the report must contain the number, date, time, duration, and the cause of such events (including unknown cause, if applicable), a list of the affected source or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

Examples of such methods would include product-loss calculations, mass balance calculations, measurements when available, or engineering judgment based on known process

parameters (*e.g.*, organic liquid loading rates and control efficiencies). The EPA is proposing this requirement to ensure that there is adequate information to determine compliance, to allow the EPA to determine the severity of the failure to meet an applicable standard, and to provide data that may document how the source met the general duty to minimize emissions during a failure to meet an applicable standard.

We would no longer require owners or operators to determine whether actions taken to correct a malfunction are consistent with an SSM plan, because plans would no longer be required. The proposed amendments would eliminate the cross-reference to 40 CFR 63.10(d)(5)(i) (at 40 CFR 63.2386(c)(5) and item 1.a of Table 11 to subpart EEEE) that contains the description of the previously required SSM report format and submittal schedule from this section. These specifications are no longer necessary because the events will be reported in otherwise required reports with similar format and submittal requirements.

Requirements for flares. We are proposing to revise the General Provisions table to subpart EEEE (Table 12) entry for 40 CFR 63.11(b) by changing the “yes” in column 4 to a “no” in which 40 CFR 63.11(b) would be no longer applicable beginning 3 years after publication of the final rule in the **Federal Register**. Refer to section IV.A.1 of this preamble for discussion of this proposed revision.

c. Requirements for Safety Devices

We are proposing to remove the safety device opening allowance of 40 CFR 63.2346(i) beginning 3 years after publication of the final rule in the **Federal Register**. Pressure relief device provisions are discussed in more detail in section IV.A.2 of this preamble.

d. Proposed Revisions Related to the Periods of Planned Routine Maintenance of a Control Device and Bypass of Routing Emissions to a Fuel Gas System or Process

Under the current OLD rule, there are two allowances for storage tank and transfer rack emission limits to exceed the standard for up to 240 hours per year: (1) periods of planned routine maintenance of a control device and (2) bypass of the fuel gas system or process if emissions are routed to these for control. In 2004, the EPA added these allowances in the final rule in response to a comment that suggested that an allowance is needed for planned routine maintenance of control devices when storage tanks cannot be taken out of service.³² These allowances represent periods of shutdown for the control devices used to comply with the standards, so we are proposing to remove these allowance periods for transfer racks and storage tank working losses to be consistent with our proposal to eliminate other SSM event exemptions discussed earlier in this section of the preamble.

For transfer rack operations and storage tank working losses, most facilities would likely be able to plan transfers to occur when the control device is not shut down for maintenance. The owner or operator of a storage tank or transfer operation also would have the option to continue to transfer organic liquids during the planned routine maintenance of the control device by operating a temporary control device to meet the standards during these periods. We propose to continue to allow storage tank breathing losses to occur during planned routine maintenance of a control device for up to 240 hours per year because these emissions would be significantly less than emptying and degassing a storage tank prior to conducting planned routine maintenance on a control device. We request comment on whether we should allow some period of exceedance

³² See *Response to Comments Document For Promulgated Standards - Organic Liquid Distribution (Non-Gasoline) Industry [A-98-13 V-C-01]*, available at Docket ID Item No. EPA-HQ-OAR-2003-0138-0031.

for solely tank breathing losses during planned routine maintenance of a control device. See the memorandum, *240-hour Exceedance Allowance Control Analysis*, in the docket for this action for details on alternative control costs and impacts.

We expect this change to result in emission reductions of HAP. However, we do not have enough information to make an accurate estimate of the HAP emission reductions, and we are not including any in the environmental impacts, although we expect these HAP emission reductions could be up to 390 tpy based on assumptions about pump rates and number of hours needed for the planned routine maintenance of the control device at each controlled transfer rack. We present the cost impacts of this proposed revision in section V.C of this preamble.

2. Electronic Reporting Requirements

We are proposing that owners and operators of OLD facilities submit electronic copies of required performance test reports, performance evaluation reports, compliance reports, NOCS reports, and fenceline monitoring reports through the EPA's Central Data Exchange (CDX) using CEDRI. A description of the electronic data submission process is provided in the memorandum, *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules*, available in the docket for this action. The proposed rule requires that performance test results collected using test methods that are supported by the EPA's Electronic Reporting Tool (ERT) as listed on the ERT website³³ at the time of the test be submitted in the format generated through the use of the ERT and that other performance test results be submitted in portable document format (PDF) using the attachment module of the ERT. Similarly, performance evaluation results of continuous monitoring systems measuring relative accuracy test audit pollutants that are

³³ <https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>.

supported by the ERT at the time of the test must be submitted in the format generated through the use of the ERT and other performance evaluation results be submitted in PDF using the attachment module of the ERT. The proposed rule requires that NOCS reports be submitted as a PDF upload in CEDRI.

For compliance reports and fenceline monitoring reports, the proposed rule requires that owners and operators use the appropriate spreadsheet template to submit information to CEDRI. Draft versions of the proposed templates for these reports are available in the docket for this action.³⁴ We specifically request comment on the content, layout, and overall design of the templates.

Additionally, we have identified two broad circumstances in which electronic reporting extensions may be provided. In both circumstances, the decision to accept the claim of needing additional time to report is within the discretion of the Administrator, and reporting should occur as soon as possible. We are providing these potential extensions to protect owners and operators from noncompliance in cases where they cannot successfully submit a report by the reporting deadline for reasons outside of their control. The situation where an extension may be warranted due to outages of the EPA's CDX or CEDRI which precludes an owner or operator from accessing the system and submitting required reports is addressed in 40 CFR 63.2386(i). The situation where an extension may be warranted due to a *force majeure* event, which is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents an owner or operator from complying with the requirement to submit a report electronically as required by

³⁴ See *OLD_Compliance_Report_Draft_Template.xlsx* and *OLD_Fenceline_Report_Draft_Template.xlsx*, which are available in the docket for this action.

this rule is addressed in 40 CFR 63.2386(j). Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazards beyond the control of the facility.

The electronic submittal of the reports addressed in this proposed rulemaking will increase the usefulness of the data contained in those reports, is in keeping with current trends in data availability and transparency, will further assist in the protection of public health and the environment, will improve compliance by facilitating the ability of regulated facilities to demonstrate compliance with requirements and by facilitating the ability of delegated state, local, tribal, and territorial air agencies and the EPA to assess and determine compliance, and will ultimately reduce burden on regulated facilities, delegated air agencies, and the EPA. Electronic reporting also eliminates paper-based, manual processes, thereby saving time and resources, simplifying data entry, eliminating redundancies, minimizing data reporting errors, and providing data quickly and accurately to the affected facilities, air agencies, the EPA, and the public. Moreover, electronic reporting is consistent with the EPA's plan³⁵ to implement Executive Order 13563 and is in keeping with the EPA's Agency-wide policy³⁶ developed in response to the White House's Digital Government Strategy.³⁷ For more information on the benefits of electronic reporting, see the memorandum, *Electronic Reporting Requirements for New Source Performance Standards (NSPS) and National Emission Standards for Hazardous Air Pollutants (NESHAP) Rules*, available in the docket for this action.

³⁵ The EPA's *Final Plan for Periodic Retrospective Reviews*, August 2011. Available at: <https://www.regulations.gov/document?D=EPA-HQ-OA-2011-0156-0154>.

³⁶ *E-Reporting Policy Statement for EPA Regulations*, September 2013. Available at: <https://www.epa.gov/sites/production/files/2016-03/documents/epa-ereporting-policy-statement-2013-09-30.pdf>.

³⁷ *Digital Government: Building a 21st Century Platform to Better Serve the American People*, May 2012. Available at: <https://obamawhitehouse.archives.gov/sites/default/files/omb/egov/digital-government/digital-government.html>.

3. Other Amendments and Corrections

The EPA has noted a situation where compliance assurance may be challenged or possibly compromised due to the current rule's requirements for emission sources not requiring control as specified in 40 CFR 63.2343. In the current provisions, the "annual average true vapor pressure" definition contains the determination options, which include some testing methods as options but also allow for standard reference texts. The EPA is proposing to require testing and recordkeeping to confirm the annual average true vapor pressure at least every 5 years, or with a change of commodity in the tank's contents, whichever occurs first, to ensure the tank's applicability and confirm that it should not be subject to the 95-percent control requirements of the regulation. We are also proposing that this periodic testing requirement may be met if the OLD responsible official has been provided a certificate of analysis that includes vapor pressure analysis data for the tank's contents by the liquid's supplier within the 5-year period.

The HAP content determination requirements are not expressly stated in the "organic liquids" definition, but there are HAP content determination methods listed in 40 CFR 63.2354. The methods include testing and analysis, material safety data sheets, or certified product data sheets. No frequency for making these determinations are specified in the current OLD NESHAP. Similar to the annual true vapor pressure, we are proposing a requirement that the contents of tanks that are claimed to be not subject to the OLD NESHAP because they contain less than 5-percent HAP (and, therefore, do not meet the definition of "organic liquids" within the OLD NESHAP) should be tested every 5 years, or with a change of commodity in the tank's contents, whichever occurs first, to confirm that the tank is not storing "organic liquids" and, therefore, is not subject to the rule. We are also proposing that this periodic testing requirement

may be met if the OLD responsible official has been provided HAP content analysis data for the tank's contents by the liquid's supplier within the 5-year period.

The EPA is requesting comment on the need for these periodic testing and analysis confirmations and also whether a definition of "significant change to the tank's contents" is necessary for implementation purposes.

We are proposing to revise 40 CFR 63.2354(c), which specified the determination of HAP content of an organic liquid, by adding the voluntary consensus standard (VCS), ATSM D6886-18, "Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography," as another acceptable method. We are also proposing to add a sentence at the end of this paragraph that requires analysis by Method B or Method C in section of 4.3 of the VCS, ASTM D6886-18, when organic liquids contain formaldehyde or carbon tetrachloride. The rationale for adding the use of ASTM D8668-18 and its use as a governing method for organic liquids that contain formaldehyde or carbon tetrachloride results from the inability of Method 311 of appendix A to 40 CFR part 63 to detect the presence of these compounds.

We are proposing to amend the definition of the term "annual average true vapor pressure" at 40 CFR 63.2406 by replacing one of the acceptable methods for the determination of vapor pressure. We propose to replace the method, ASTM D2879, "Standard Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope," with the method, ASTM D6378-18a, "Standard Test Method for Determination of Vapor Pressure (VPX) of Petroleum Products, Hydrocarbons, and Hydrocarbon-Oxygenate Mixtures (Triple Expansion Method)." ASTM D2879, the method in the current OLD NESHAP, requires the use of an isoteniscope and involves heating the sample until it boils, which can result

in the loss of volatiles before the vapor pressure is measured. The method we are proposing as a replacement is a newer, automated device method that does not have this step and is expected to produce more accurate vapor pressure measurements for organic liquids regulated in the OLD NESHAP. This method is suitable for a range of vapor to liquid ratios of 4:1 to 1:1. We are also proposing that the use of this method to determine vapor pressure of a liquid for the purposes of this rule sets the vapor to liquid ratio at 4:1. Also, we are proposing to clarify in the definition of the term “annual average true vapor pressure” regarding how the American Petroleum Institute (API) Publication 2517, *Evaporative Loss from External Floating-Roof Tanks*, third edition, February 1989 (incorporated by reference, see 40 CFR 63.14) can be used to calculate vapor pressure. API Publication 2517 does not prescribe methods that measure the vapor pressure of a liquid. However, this publication does serve as a standard reference, although, it is somewhat dated. It contains a table of vapor pressures of a few pure substances at temperatures between 40 and 100 degrees Fahrenheit. It also has charts and equations that can calculate true vapor pressure from stock temperature and Reid vapor pressure for crude oils and refined petroleum stocks. AP-42 Chapter 7, which is publicly available, contains similar information regarding the determination of vapor pressure as described in API Publication 2517. For these reasons, we are proposing to remove specific reference to API Publication 2517 in the definition of the term “annual average true vapor pressure.”

At 40 CFR 63.2354(b)(3) and Table 5 to 40 CFR part 63, subpart EEEE, item 1.a.i.(5), for performance tests on nonflare control devices, we are proposing to clarify that Method 18 of appendix A-6 to 40 CFR part 60 (“Method 18”) and Method 320 of appendix A to 40 CFR part 63 (“Method 320”) are not appropriate for a combustion control device because these methods would not detect the presence of HAP, other than those HAP present at the inlet of the control

device, that may be generated from the combustion device. Also, we are specifying that Method 320 is not appropriate if the gas stream contains entrained water droplets.

At 40 CFR 63.2354(b)(4) and Table 5 to 40 CFR part 63, subpart EEEE, item 1.a.i.(5), for performance tests on nonflare control devices, for cases in which formaldehyde is present in the uncontrolled vent stream, we are proposing to allow the use of Method 320 or Method 323 of appendix A to 40 CFR part 63 to measure the removal of formaldehyde by the control device provided there are no entrained water droplets in the gas stream.

At Table 5 to 40 CFR part 63, subpart EEEE, item 1.a.i.(3), we are replacing the specification of Method 3 of appendix A-2 to 40 CFR part 60 with Method 3A of appendix A-2 to 40 CFR part 60 because Method 3A is more accurate.

At 40 CFR 63.2354(b)(3)(ii)(B), we are proposing to clarify that ASTM D6420-99 (Reapproved 2004) may be used as an alternative to Method 18 for target compounds not listed in section 1.1 of ASTM D6420-99 provided that you must demonstrate recovery of the compound in addition to the other conditions stated in the current rule.

At 40 CFR 63.2366(c), we are proposing to add specification of written procedures for the operation of continuous emissions monitoring systems (CEMS). At 40 CFR 63.2366(d), we are proposing to add specification of location of sampling probe for CEMS.

At 40 CFR 63.2406, we are proposing to add a definition of the term condensate and to specify its regulation in this rule in the same way crude oil is regulated at the definition of the term “organic liquid” and at Tables 2 and 2b to 40 CFR part 63, subpart EEEE. We are defining the term condensate using the same definition that is used in 40 CFR part 63, subpart HH. We are making this clarification to ensure that condensate (which, like crude oil, is an unrefined

reservoir fluid having significant quantities of HAP) is treated in the same manner as crude oil in the OLD NESHAP.

The Energy Information Administration (EIA) collects and reports data regarding crude oil and lease condensate production in EIA Form-914 as combined values and defines crude oil to include lease condensate.³⁸ EIA defines crude oil in its glossary as “Crude oil: A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include 1. Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well (casing head) gas in lease separators and are subsequently comingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included; 2. Small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals; 3. Drip gases, and liquid hydrocarbons produced from tar sands, oil sands, gilsonite, and oil shale.”³⁹ Therefore, because the current definition of crude oil at 40 CFR 63.2406 defines crude oil to mean any fluid named crude oil and because condensates are a significant part of crude oil production stream and are often sold as fluids called condensate, we are adding the term condensate and using it in the proposed amendments to ensure that unrefined reservoir fluids named as condensate, that have HAP contents with a similar range as crude oils, are being regulated in the same manner as crude oil in the OLD NESHAP.

³⁸ *Monthly Crude Oil and Natural Gas Production*, <https://www.eia.gov/petroleum/production/>.

³⁹ EIA Glossary, <https://www.eia.gov/tools/glossary/index.php>.

We are adding the definition of the terms “pressure relief device” and “relief valve” at 40 CFR 63.2406. The definitions of these terms are the same as those included in the Petroleum Refinery Sector final rule (see 83 FR 60696, November 26, 2018) and currently used at 40 CFR part 63, subpart CC. We are also proposing to revise the term “pressure relief valve” to “relief valve” at 40 CFR 63.2346(a)(4)(v).

Finally, there are several additional revisions that we are proposing to 40 CFR part 63, subpart EEEE to clarify text or correct typographical errors, grammatical errors, and cross-reference errors. These proposed editorial corrections and clarifications are summarized in Table 9 of this preamble.

Table 9. Summary of Proposed Editorial, Clarification, and Minor Corrections to 40 CFR part 63, subpart EEEE

Citation(s)	Proposed Revision
40 CFR 63.2338(c)	Referencing correction. Change “paragraphs (c)(1) through (4)” to “paragraphs (c)(1) through (3)” because there is no paragraph (c)(4).
40 CFR 63.2342(d)	Referencing correction. Change “in §63.2382(a) and (b)(1) through (3)” to “in §63.2382(a) and (b),” because there is no paragraph (b)(3).
40 CFR 63.2343(a)	Removing two uses of the extraneous phrase “identified in paragraph (a) of this section.”
40 CFR 63.2346(a)(4)(v)	Correcting the spelling of the word “gauge.”
40 CFR 63.2343(c)(1)(iii)	Referencing correction. Change “paragraph (b) or this section” to “paragraph (c) or this section.”
40 CFR 63.2346(a)(4)(ii) and (d)(2); 40 CFR 63.2362(b)(2); 40 CFR 63.2390(c)(2); and item 6 of Table 5 to Subpart EEEE.	Referencing correction for U.S. Department of Transportation transport vehicle requirements from “pressure test requirements of 49 CFR part 180 for cargo tanks and 49 CFR 173.31 for tank cars” to “qualification and maintenance requirements in 49 CFR part 180, subpart E for cargo tanks and subpart F for tank cars”
40 CFR 63.2350(a)	Referencing correction: Change “in §63.2338(b)(1) through (4)” to “in §63.2338(b)(1) through (5)” because the last item in the list was not included.
40 CFR 63.2354(b)(3)(i), (b)(3)(i)(A), (b)(3)(i)(B), (b)(3), (c); 40 CFR 63.2406(b) definition of “vapor-tight transport vehicle;” and Table 5 to Subpart EEEE	Removing the word “EPA” from the phrase “EPA Method” where the phrase precedes designation of a method published in title 40 of the CFR.
40 CFR 63.2354(c)	Changing the term used for the Occupational Safety and Health

	Administration’s hazard communication standard from “material safety data sheet (MSDS)” to “safety data sheet (SDS).”
40 CFR 63.2366(a)	Spelling out “continuous monitoring system” before the acronym “CMS,” which is a term defined at 40 CFR 63.2.
40 CFR 63.2406	In the definition of the term, annual average true vapor pressure, removing the word “standard” from “standard conditions” because the conditions specified in this definition are not standard conditions as defined at 40 CFR 63.2 and used in this subpart.
Table 9 to Subpart EEEE	In item 8, correcting a cross-reference citation from 63.2366(c) to 63.2366(b).
Table 12 to Subpart EEEE	<p>Adding an entry for §63.7(e)(4), which specifies the Administrator has the authority to require performance testing regardless of specification of performance testing at §63.7(e)(1)-(3).</p> <p>Changing the entry for §63.10(d)(2), Report of Performance Test Results, from Yes to No. Proposed 40 CFR 63.2386 specifies how and when the performance test results are reported.</p> <p>Changing the entry for §63.10(e)(3)(vi)-(viii), Excess Emissions Report and Summary Report, from Yes to No. This information is required to be submitted at proposed 40 CFR 63.2386.</p>

F. What compliance dates are we proposing?

Amendments to the OLD NESHAP proposed in this rulemaking for adoption under CAA section 112(d)(2) and (3) and CAA section 112(d)(6) are subject to the compliance deadlines outlined in the CAA under section 112(i).

For all of the requirements we are proposing under CAA sections 112(d)(2), (3), and (d)(6), we are proposing all affected sources must comply with all of the amendments no later than 3 years after the effective date of the final rule, or upon startup, whichever is later. For existing sources, CAA section 112(i) provides that the compliance date shall be as expeditiously as practicable, but no later than 3 years after the effective date of the standard. (“Section 112(i)(3)’s three-year maximum compliance period applies generally to any emission standard...promulgated under [section 112].” *Association of Battery Recyclers v. EPA*, 716 F.3d 667, 672 (D.C. Cir. 2013)). In determining what compliance period is as expeditious as

practicable, we consider the amount of time needed to plan and construct projects and change operating procedures.

We are proposing new monitoring requirements for flares under CAA section 112(d)(2) and (3). We anticipate that these requirements could require engineering evaluations and, possibly in some limited cases, require the installation of new flare monitoring equipment and possibly new control systems to monitor and adjust assist gas (air or steam) addition rates. Installation of new monitoring and control equipment on flares will require the flare to be taken out of service. Depending on the configuration of the flares and flare header system, taking the flare out of service may also require a significant portion of the OLD source to be shut down, especially if the facility is primarily a bulk organic liquids terminal. Therefore, we are proposing that it is necessary to provide 3 years after the effective date of the final rule (or upon startup, whichever is later) for owners or operators to comply with the new operating and monitoring requirements for flares.

Under our technology review for equipment leaks under CAA section 112(d)(6), we are proposing to revise the LDAR requirements to add connectors to the monitored equipment.

Also, as a result of our technology review for storage tanks, we are proposing to lower applicability thresholds for tanks requiring 95-percent HAP control so that more tanks will require control than with the existing OLD NESHAP. Furthermore, we are proposing tank fitting LDAR requirements for fixed roof storage tanks that are below the applicability threshold for 95-percent HAP control. We project some owners and operators would require engineering evaluations, solicitation and review of vendor quotes, contracting and installation of control equipment, which would require affected storage tanks to be out of service while the retrofits with IFR or closed vent systems are being installed. In addition, facilities will need time to read

and understand the amended rule requirements and update standard operating procedures.

Therefore, we are proposing that it is necessary to provide 3 years after the effective date of the final rule (or upon startup, whichever is later) for owners or operators to comply with the proposed storage tank and equipment leak provisions.

Finally, we are proposing to change the requirements for SSM by removing the exemption from the requirements to meet the standard during SSM periods and by removing the requirement to develop and implement an SSM plan; we are also proposing electronic reporting requirements. We are positing that facilities would need some time to successfully accomplish these revisions, including time to read and understand the amended rule requirements, to evaluate their operations to ensure that they can meet the standards during periods of startup and shutdown, as defined in the rule, and make any necessary adjustments, and to convert reporting mechanisms to install necessary hardware and software. The EPA recognizes the confusion that multiple different compliance dates for individual requirements would create and the additional burden such an assortment of dates would impose. From our assessment of the time frame needed for compliance with the entirety of the revised requirements, the EPA considers a period of 3 years after the effective date of the final rule to be the most expeditious compliance period practicable and, thus, is proposing that existing affected sources be in compliance with all of this regulation's revised requirements within 3 years of the regulation's effective date. For new sources that commence construction or reconstruction after the publication date of this proposed action, we are requiring compliance upon initial startup.

V. Summary of Cost, Environmental, and Economic Impacts

A. What are the affected sources?

There are 177 sources currently operating OLD equipment subject to the OLD NESHAP. A complete list of facilities that are currently subject to the OLD NESHAP is available in Appendix 1 of the memorandum, *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the 2019 Risk and Technology Review Proposed Rule*, which is available in the docket for this action.

EPA projects four new liquids terminals and one major terminal expansion that would be subject to the OLD NESHAP. These new sources are not included in the risk assessment modeling effort but are included in the impacts analysis.

B. What are the air quality impacts?

The risk assessment model input file identifies approximately 2,400 tons HAP emitted per year from equipment regulated by the OLD NESHAP. The predominant HAP compounds include toluene, hexane, methanol, xylenes (mixture of o, m, and p isomers), benzene, styrene, methyl isobutyl ketone, methylene chloride, methyl tert-butyl ether, and ethyl benzene. More information about the baseline emissions in the risk assessment model input file can be found in Appendix 1 of the memorandum, *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the 2019 Risk and Technology Review Proposed Rule*, which is available in the docket for this action. This proposed action would reduce HAP emissions from OLD NESHAP sources. The EPA estimates HAP emission reductions of approximately 386 tpy based on our analysis of the proposed actions described in sections IV.D.1 and 2 in this preamble. More information about the estimated emission reductions of this proposed action can be found in the document, *National Impacts of the 2019 Risk and Technology Review Proposed Rule for the Organic Liquids Distribution (Non-Gasoline) Source Category*, which is available in the docket for this action.

We estimate a resulting reduction of the MIR from 20-in-1 million to about 10-in-1 million. Likewise, population exposed to a cancer risk of greater than or equal to 1-in-1 million would be reduced from 350,000 to about 220,000. While not explicitly calculated, we would expect commensurate reductions in other risks metrics such as incidence, acute risk, multipathway risks, and ecological risks.

C. What are the cost impacts?

We estimate the total capital costs of these proposed amendments to be approximately \$4.5 million and the total annualized costs (including recovery credits) to be \$1.8 million per year (2016 dollars). We also estimate the present value in 2016 of the costs is \$8.4 million at a discount rate of 3 percent and \$6.2 million at 7 percent (2016 dollars). Calculated as an equivalent annualized value, which is consistent with the present value of costs in 2016, the costs are \$1.8 million at a discount rate of 3 percent and \$1.5 million at a discount rate of 7 percent (2016 dollars). The annualized costs include those for operating and maintenance, and recovery credits of approximately \$400,000 per year from the reduction in leaks and evaporative emissions from storage tanks. To estimate savings in chemicals not being emitted (*i.e.*, lost) due to the equipment leak control options, we applied a recovery credit of \$900 per ton of VOC to the VOC emission reductions in the analyses. The \$900 per ton recovery credit has historically been used by the EPA to represent the variety of chemicals that are used as reactants and produced at synthetic organic chemical manufacturing facilities,⁴⁰ however, we recognize that this value is from a 2007 analysis and may be outdated. Therefore, we solicit comment on the

⁴⁰ U.S. EPA. 2007. Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry; Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries (<https://www.federalregister.gov/documents/2007/07/09/E7-13203/standards-of-performance-for-equipment-leaks-of-voc-in-the-synthetic-organic-chemicals-manufacturing>). EPA-HQ-OAR-2006-0699.

availability of more recent information to potentially update the value used in this analysis to estimate the recovery credits. We used an interest rate of 5 percent to annualize the total capital costs. These estimated costs are associated with amendments of the requirements for storage tanks, LDAR, flares, and transfer racks. Table 10 of this preamble shows the estimated costs for each of the equipment types. Detailed information about how we estimated these costs are described in the following documents available in the docket for this action: *National Impacts of the 2019 Risk and Technology Review Proposed Rule for the Organic Liquids Distribution (Non-Gasoline) Source Category*, and *Economic Impact and Small Business Analysis for the Proposed OLD Production Risk and Technology Review (RTR) NESHAP*.

Table 10. Summary of Costs of Proposed Amendments by Equipment Type, in Millions (2016\$)

Equipment Type	Capital Cost	Total Annualized Cost (without annual recovery credits)	Annual Recovery Credits	Total Annualized Cost (with annual recovery credits)
Storage tanks	2.68	0.41	0.33	0.08
LDAR – connector monitoring	1.64	0.57	0.08	0.49
Flares	0.19	0.36	N/A	0.36
Transfer racks	0.00	0.88	N/A	0.88
<i>Total</i>	<i>4.51</i>	<i>2.22</i>	<i>0.41</i>	<i>1.81</i>

D. What are the economic impacts?

The EPA conducted economic impact analyses for this proposal, as detailed in the memorandum, *Economic Impact and Small Business Analysis for the Proposed OLD Production Risk and Technology Review (RTR) NESHAP*, which is available in the docket for this action.

The economic impacts of the proposal are calculated as the percentage of total annualized costs

incurred by affected ultimate parent owners to their revenues. This ratio provides a measure of the direct economic impact to ultimate parent owners of OLD facilities while presuming no impact on consumers. We estimate that none of the ultimate parent owners affected by this proposal will incur total annualized costs of 0.2 percent or greater of their revenues. This estimate reflects the total annualized costs without product recovery as a credit. Thus, these economic impacts are low for affected companies and the industries impacted by this proposal, and there will not be substantial impacts on the markets for affected products. The costs of the proposal are not expected to result in a significant market impact, regardless of whether they are passed on to the purchaser or absorbed by the firms.

E. What are the benefits?

The EPA did not monetize the benefits from the estimated emission reductions of HAP associated with this proposed action. However, we expect this proposed action would result in benefits associated with HAP emission reductions and lower risk of adverse health effects in communities near OLD sources.

VI. Request for Comments

We solicit comments on this proposed action. In addition to general comments on this proposed action, we are also interested in additional data that may improve the risk assessments and other analyses. We are specifically interested in receiving any improvements to the data used in the site-specific emissions profiles used for risk assessment modeling. Such data should include supporting documentation in sufficient detail to allow characterization of the quality and representativeness of the data or information. Section VII of this preamble provides more information on submitting data.

VII. Submitting Data Corrections

The site-specific emissions profiles used in the source category risk and demographic analyses and instructions are available for download on the RTR website at <https://www.epa.gov/stationary-sources-air-pollution/organic-liquids-distribution-national-emission-standards-hazardous>. The data files include detailed information for each HAP emissions release point for the facilities in the source category.

If you believe that the data are not representative or are inaccurate, please identify the data in question, provide your reason for concern, and provide any “improved” data that you have, if available. When you submit data, we request that you provide documentation of the basis for the revised values to support your suggested changes. To submit comments on the data downloaded from the RTR website, complete the following steps:

1. Within this downloaded file, enter suggested revisions to the data fields appropriate for that information.

2. Fill in the commenter information fields for each suggested revision (*i.e.*, commenter name, commenter organization, commenter email address, commenter phone number, and revision comments).

3. Gather documentation for any suggested emissions revisions (*e.g.*, performance test reports, material balance calculations).

4. Send the entire downloaded file with suggested revisions in Microsoft® Access format and all accompanying documentation to Docket ID No. EPA-HQ-OAR-2018-0074 (through the method described in the **ADDRESSES** section of this preamble).

5. If you are providing comments on a single facility or multiple facilities, you need only submit one file for all facilities. The file should contain all suggested changes for all sources at that facility (or facilities). We request that all data revision comments be submitted in the form of

updated Microsoft® Excel files that are generated by the Microsoft® Access file. These files are provided on the RTR website at <https://www.epa.gov/stationary-sources-air-pollution/organic-liquids-distribution-national-emission-standards-hazardous>.

VIII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <https://www.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a significant regulatory action that was submitted to OMB for review. This action is a significant regulatory action because it is likely to result in a rule that raises novel legal or policy issues. This regulatory action is not likely to have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or state, local, or tribal governments or communities. Any changes made in response to OMB recommendations have been documented in the docket for this action. The EPA has prepared an economic analysis, *Economic Impact and Small Business Analysis for the 2019 Proposed Amendments to the National Emissions Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*, which is available in the docket for this proposed rule.

B. Executive Order 13771: Reducing Regulation and Controlling Regulatory Costs

This action is expected to be an Executive Order 13771 regulatory action. Details on the estimated costs of this proposed rule can be found in the EPA's analysis of the potential costs and benefits associated with this action.

C. Paperwork Reduction Act (PRA)

The information collection activities in this proposed rule have been submitted for approval to the OMB under the PRA. The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR number 1963.07. You can find a copy of the ICR in the docket for this action, and it is briefly summarized here.

We are proposing amendments that would change the reporting and recordkeeping requirements for OLD operations. The proposed amendments also require electronic reporting of performance test results and reports and compliance reports. The information would be collected to ensure compliance with 40 CFR part 63, subpart EEEE.

Respondents/affected entities: Owners and operators of OLD operations at major sources of HAP are affected by these proposed amendments. These respondents include, but are not limited to, facilities having NAICS codes: 4247 (Petroleum and Petroleum Products Merchant Wholesalers), 4861 (Pipeline Transportation of Crude Oil), and 4931 (Warehousing and Storage).

Respondent's obligation to respond: Mandatory under sections 112 and 114 of the CAA.

Estimated number of respondents: 181 facilities.

Frequency of response: Once or twice per year.

Total estimated burden: 5,967 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: \$820,212 (per year), which includes \$216,154 annualized capital or operation and maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs via email to OIRA_submission@omb.eop.gov, Attention: Desk Officer for the EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after receipt, OMB must receive comments no later than **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**. The EPA will respond to any ICR-related comments in the final rule.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. The small entities subject to the requirements of this action are all small businesses. The Agency has determined that nine small entities are affected by these proposed amendments, which is 9 percent of all affected ultimate parent businesses. These nine small businesses may experience an impact of annualized costs of less than 0.20 percent of their annual revenues. Details of this analysis are presented in the *Economic Impact and Small Business Analysis for the 2019 Proposed Amendments to the National Emissions Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)*, available in the docket for this action.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of \$100 million or more as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments.

The action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. None of the facilities that have been identified as being affected by this action are owned or operated by tribal governments or located within tribal lands. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This action is not subject to Executive Order 13045 because it is not economically significant as defined in Executive Order 12866. This action's health and risk assessments are contained in contained in sections III.A and C and sections IV.B and C of this preamble and in the *Residual Risk Assessment for the Organic Liquids Distribution (Non-Gasoline) Source Category in Support of the Risk and Technology Review 2019 Proposed Rule*, which includes how risks to infants and children are addressed, and which is available in the docket for this action. The EPA expects that the emission reductions of HAP resulting from this proposed action would improve children's health.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a “significant energy action” because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The EPA expects this proposed action would not reduce crude oil supply, fuel production, coal production, natural gas production, or electricity production. We estimate that this proposed action would have minimal impact on the amount of imports or exports of crude oils, condensates, or other organic liquids used in the energy supply industries. Given the minimal impacts on energy supply, distribution, and use as a whole nationally, all of which are under the threshold screening criteria for compliance with this Executive Order established by OMB, no significant adverse energy effects are expected to occur.

J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR part 51

This action involves technical standards. Therefore, the EPA conducted searches for the OLD NESHAP through the Enhanced National Standards Systems Network database managed by the American National Standards Institute (ANSI). We also contacted VCS organizations and accessed and searched their databases. We conducted searches for Methods 1, 1A, 2, 2A, 2C, 2D, 2F, 2G, 3, 3A, 3B, 4, 18, 21, 22, 25, 25A, 26, 26A, and 27 of 40 CFR part 60, appendix A and Methods 301, 311, 316, 320, 325A, and 325B of 40 CFR part 63, appendix A. During the EPA’s VCS search, if the title or abstract (if provided) of the VCS described technical sampling and analytical procedures that are similar to the EPA’s reference method, the EPA reviewed it as a potential equivalent method. We reviewed all potential standards to determine the practicality of the VCS for this rule. This review requires significant method validation data that meet the requirements of Method 301 of appendix A to 40 CFR part 63 for accepting alternative methods or scientific, engineering, and policy equivalence to procedures in the EPA reference methods.

The EPA may reconsider determinations of impracticality when additional information is available for particular VCS.

No applicable VCSs were identified for Methods 1A, 2A, 2D, 2F, 2G, 21, 22, 27, and 316.

Seven VCSs were identified as an acceptable alternative to EPA test methods for the purposes of this rule:

(1) The VCS ANSI/ASME PTC 19-10-1981 Part 10, “Flue and Exhaust Gas Analyses,” is an acceptable alternative to Method 3B manual portion only and not the instrumental portion.

Therefore, we are proposing to add this standard as a footnote to item 1.a.i.(3) of Table 5 of 40 CFR part 63, subpart EEEE and incorporate this standard by reference at 40 CFR 63.14(e)(1).

ASME PTC 19.10 specifies methods, apparatus, and calculations which are used in conjunction with Performance Test Codes to determine quantitatively, the gaseous constituents of exhausts resulting from stationary combustion sources. The gases covered by this method are oxygen, carbon dioxide, carbon monoxide, nitrogen, sulfur dioxide, sulfur trioxide, nitric oxide, nitrogen dioxide, hydrogen sulfide, and hydrocarbons. Included are instrumental methods as well as (normally, wet chemical) methods. This method is available at the American National Standards Institute (ANSI), 1899 L Street, NW, 11th floor, Washington, DC 20036 and the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016-5990. See <https://www.ansi.org> and <https://www.asme.org>.

(2) The VCS ASTM D6420-18, “Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry.” This ASTM procedure has been approved by the EPA as an alternative to Method 18 only when the target compounds are all known, and the target compounds are all listed in ASTM D6420 as

measurable. ASTM D6420 should not be specified as a total VOC method. Therefore, we are proposing to add this standard as a footnote to Table 5 to 40 CFR part 63, subpart EEEE and incorporate this standard by reference at 40 CFR 63.14(e)(93). We are also proposing to update reference to the older version of this standard (*i.e.*, ASTM D6420-99 (Reapproved 2004) at 40 CFR 63.2354(b)(3) to the new 2018 version and are proposing to remove reference to the old version of this standard at 40 CFR 63.14(e)(90) for use in the OLD NESHAP. ASTM D6420 is a field test method that employs a direct interface gas chromatograph/mass spectrometer (GCMS) to determine the mass concentration of any subset of 36 compounds listed in this method. Mass emission rates are determined by multiplying the mass concentration by the effluent volumetric flow rate. This field test method employs laboratory GCMS techniques and QA/quality control (QC) procedures in common application. This field test method provides data with accuracy and precision similar to most laboratory GCMS instrumentation.

(3) The VCS ASTM D6735-01(2009), “Standard Test Method for Measurement of Gaseous Chlorides and Fluorides from Mineral Calcining Exhaust Sources Impinger Method,” is an acceptable alternative to Method 26 or Method 26A from Mineral Calcining Exhaust Sources, which is specified at 40 CFR part 63, subpart SS, which is cited in the OLD NESHAP. For further information about the EPA’s proposal to allow the use of this VCS in 40 CFR part 63, subpart SS, see the EPA’s Ethylene Production RTR proposed amendments in Docket ID No. EPA-HQ-OAR-2017-0357. It is not being proposed for incorporation by reference in this notice of proposed rulemaking.

(4) The VCS California Air Resources Board (CARB) Method 310, “Determination of Volatile Organic Compounds in Consumer Products and Reactive Organic Compounds in Aerosol Coating Products” is an acceptable alternative to Method 311. However, we are not proposing to

specify use of this method in the OLD NESHAP because CARB Method 310 is designed to measure the contents of aerosol cans and would not be well suited for organic liquid samples regulated under the OLD NESHAP. It is not being proposed for incorporation by reference in this notice of proposed rulemaking.

(5) The VCS ASTM D6348-12e1, “Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy,” is an acceptable alternative to Method 320. In the September 22, 2008, NTTA summary, ASTM D6348-03(2010) was determined equivalent to Method 320 with caveats. ASTM D6348-12e1 is an extractive FTIR based field test method used to quantify gas phase concentrations of multiple target analytes from stationary source effluent. Because an FTIR analyzer is potentially capable of analyzing hundreds of compounds, this test method is not analyte or source specific. This field test method employs an extractive sampling system to direct stationary source effluent to an FTIR spectrometer for the identification and quantification of gaseous compounds.

Concentration results are provided. ASTM D6348-12e1 is a revised version of ASTM D6348-03(2010) and includes a new section on accepting the results from direct measurement of a certified spike gas cylinder, but still lacks the caveats we placed on the ASTM D6348-01(2010) version. The VCS ASTM D6348-12e1, “Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy,” is an acceptable alternative to Method 320 at this time with caveats requiring inclusion of selected annexes to the standard as mandatory. We are proposing to allow the use of this VCS as an alternative to Method 320 at 40 CFR 63.2354(b)(3)and(4) and at Table 5 to 40 CFR part 63, subpart EEEE under conditions that the test plan preparation and implementation in the Annexes to ASTM D6348-12e1, sections A1 through A8 are mandatory; the percent (%) R must be

determined for each target analyte (Equation A5.5); %R must be $70\% \leq R \leq 130\%$; if the %R value does not meet this criterion for a target compound, then the test data is not acceptable for that compound and the test must be repeated for that analyte (*i.e.*, the sampling and/or analytical procedure should be adjusted before a retest); and the %R value for each compound must be reported in the test report and all field measurements must be corrected with the calculated %R value for that compound by using the following equation:

$$\text{Reported Results} = ((\text{Measured Concentration in Stack})/(\%R)) \times 100.$$

We are proposing to incorporate this method at 40 CFR 63.14(e)(85) for use in the OLD NESHAP.

(6) The VCS ISO 16017-2:2003, “Indoor, Ambient and Workplace Air Sampling and Analysis of Volatile Organic Compounds by Sorbent Tube/Thermal Desorption/Capillary Gas Chromatography- Part 2: Diffusive Sampling,” is an acceptable alternative to Method 325B. This VCS is already incorporated by reference in Method 325B.

(7) The VCS ASTM D6196-03(2009), “Standard Practice for Selection of Sorbents, Sampling and Thermal Desorption Analysis Procedures for Volatile Organic Compounds in Air,” is an acceptable alternative to Methods 325A and 325B. This VCS is already incorporated by reference in Method 325B.

Additionally, the EPA proposes to use ASTM D6886-18, “Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography,” and ASTM D6378-18a, “Standard Test Method for Determination of Vapor Pressure (VP_X) of Petroleum Products, Hydrocarbons, and Hydrocarbon-Oxygenate Mixtures (Triple Expansion Method).” ASTM D6886-18 is proposed to be used as one acceptable method to determine the percent weight of HAP in organic liquid,

especially for liquids that contain a significant amount of carbon tetrachloride or formaldehyde, which are not detected using the Flame Ionization Detector based standard in the governing method currently cited in the OLD NESHAP (*i.e.*, Method 311). ASTM D6378-18a is proposed to be used as a method to determine the vapor pressure of a liquid and whether equipment that stores or transfers such liquid is subject to emission standards of the OLD NESHAP.

The ASTM methods proposed for incorporation by reference are available at ASTM International, 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA, 19428-2959. See <https://www.astm.org/>. During the comment period, these methods are available in read-only format at <https://www.astm.org/EPA.htm>.

Finally, the EPA proposes to use EPA-454/B-08-002, “Quality Assurance Handbook for Air Pollution Measurement Systems. Volume IV: Meteorological Measurements Version 2.0 (Final).” If an owner or operator of an OLD source opts to implement a fence-line monitoring program proposed at 40 CFR 63.2348 and if the owner or operator opts to collect meteorological data from an on-site meteorological station, then the proposed rule requires the owner or operator to standardize, calibrate, and operate the meteorological station according to the procedures set forth in this document. This document is available in the docket for this action.

K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994).

Our analysis of the demographics of the population with estimated risks greater than 1-in-1 million indicates potential disparities in risks between demographic groups, including the

African American, Hispanic or Latino, Over 25 Without a High School Diploma, and Below the Poverty Level groups. In addition, the population living within 50 km of OLD facilities has a higher percentage of minority, lower income, and lower education people when compared to the nationwide percentages of those groups. However, acknowledging these potential disparities, the risks for the source category were determined to be acceptable, and emissions reductions from the proposed revisions will benefit these groups the most.

The documentation for this decision is contained in sections IV.B and C of this preamble, and the technical report, *Risk and Technology Review – Analysis of Demographic Factors for Populations Living Near Organic Liquids Distribution (Non-Gasoline) Source Category Operations*, which is available in the docket for this action.

List of Subjects in 40 CFR Part 63

Environmental protection, Air pollution control, Hazardous substances, Incorporation by reference, Reporting and recordkeeping requirements.

Dated: September 26, 2019.

Andrew R. Wheeler,

Administrator.

For the reasons set forth in the preamble, the Environmental Protection Agency proposes to amend 40 CFR part 63 as follows:

**PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR
POLLUTANTS FOR SOURCE CATEGORIES**

1. The authority citation for part 63 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart A—[Amended]

2. Section 63.14 is amended by:

- a. In paragraphs (h)(31) and (32), removing the phrase “63.2406,” without replacement;
- b.. Revising paragraphs (a), (e)(1) and (h)(85);
- c. Redesignating paragraphs (h)(100) through (111) as paragraphs (h)(103) through (114), paragraphs (h)(92) through (99) as paragraphs (h)(94) through (101), and paragraphs (h)(89) through (91) as paragraphs (h)(90) through (92), respectively;
- d. Adding new paragraph (h)(89);
- e. Revising newly redesignated paragraph (h)(91);
- f. Adding new paragraph (h)(93);
- g. Adding new paragraph (h)(102); and
- h. Revising paragraph (n)(2).

The revisions and additions read as follows:

§63.14 Incorporations by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the EPA must publish a document in the Federal

Register and the material must be available to the public. All approved material is available for inspection at the EPA Docket Center Reading Room, WJC West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, DC, telephone number 202-566-1744, and is available from the sources listed below. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov or go to www.archives.gov/federal-register/cfr/ibr-locations.html.

* * * * *

(e) * * *

(1) ANSI/ASME PTC 19.10-1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], issued August 31, 1981, IBR approved for §§63.309(k), 63.457(k), 63.772(e) and (h), 63.865(b), 63.1282(d) and (g), 63.1625(b), table 5 to subpart EEEE, 63.3166(a), 63.3360(e), 63.3545(a), 63.3555(a), 63.4166(a), 63.4362(a), 63.4766(a), 63.4965(a), 63.5160(d), table 4 to subpart UUUU, 63.9307(c), 63.9323(a), 63.11148(e), 63.11155(e), 63.11162(f), 63.11163(g), 63.11410(j), 63.11551(a), 63.11646(a), and 63.11945, table 5 to subpart DDDDD, table 4 to subpart JJJJJ, table 4 to subpart KKKKK, tables 4 and 5 of subpart UUUUU, table 1 to subpart ZZZZZ, and table 4 to subpart JJJJJ.

* * * * *

(h) * * *

(85) ASTM D6348-12e1, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, Approved February 1, 2012, IBR approved for §§63.1571(a), 63.2354(b), and table 5 to subpart EEEE.

* * * * *

(89) ASTM D6378-18a, Standard Test Method for Determination of Vapor Pressure (VPX) of Petroleum Products, Hydrocarbons, and Hydrocarbon-Oxygenate Mixtures (Triple Expansion Method), approved December 1, 2018, IBR approved for §§63.2343(b)(5) and 63.2406.

* * * * *

(91) ASTM D6420-99 (Reapproved 2004), Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, Approved October 1, 2004, IBR approved for §§63.457(b), 63.485(g), 60.485a(g), 63.772(a), 63.772(e), 63.1282(a) and (d), and table 8 to subpart HHHHHHH.

* * * * *

(93) ASTM D6420-18, Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, Approved October 1, 2018, IBR approved for §63.2354(b), and table 5 to subpart EEEE.

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(102) ASTM D6886-18, Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography, approved October 1, 2018, IBR approved for §63.2354(c).

* * * * *

(n) * * *

(2) EPA-454/B-08-002, Office of Air Quality Planning and Standards (OAQPS), Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements, Version 2.0 (Final), March 24, 2008, IBR approved for §§63.658(d), 63.2348(d) and appendix A to this part: Method 325A.

* * * * *

Subpart EEEE—National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)

3. Section 63.2338 is amended by revising paragraph (c) introductory text to read as follows:

§63.2338 What parts of my plant does this subpart cover?

* * * * *

(c) The equipment listed in paragraphs (c)(1) through (3) of this section and used in the identified operations is excluded from the affected source.

* * * * *

4. Section 63.2342 is amended by revising paragraph (a) introductory text, paragraph (b) introductory text, and adding paragraphs (e) and (f) to read as follows:

§63.2342 When do I have to comply with this subpart?

(a) Except as specified in paragraph (e) of this section, if you have a new or reconstructed affected source, you must comply with this subpart according to the schedule identified in paragraph (a)(1), (2), or (3) of this section, as applicable.

* * * * *

(b) Except as specified in paragraph (e) of this section, if you have an existing affected source, you must comply with this subpart according to the schedule identified in paragraph (b)(1), (2), or (3) of this section, as applicable.

* * * * *

(d) You must meet the notification requirements in §§63.2343 and 63.2382(a), as applicable, according to the schedules in §63.2382(a) and (b)(1) through (2) and in subpart A of this part. Some of these notifications must be submitted before the compliance dates for the

emission limitations, operating limits, and work practice standards in this subpart.

(e) An affected source that commenced construction or reconstruction on or before **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, must be in compliance with the requirements listed in paragraphs (e)(1) through (7) of this section upon initial startup or **[date 3 years after date of publication of final rule in the Federal Register]**, whichever is later. An affected source that commenced construction or reconstruction after **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, must be in compliance with the requirements listed in paragraphs (e)(1) through (7) of this section upon initial startup.

(1) The requirements for storage tanks not requiring control specified in §63.2343(b)(4) through (7).

(2) The requirements for storage tanks at an existing affected source specified in §63.2346(a)(5) and (6), §63.2386(d)(3)(iii), §63.2396(a)(4), Table 2 to this subpart, footnote (2), and Table 2b to this subpart.

(3) The equipment leak requirements specified in §63.2346(l), Table 4 to this subpart, item 7, and footnote (1), Table 10 to this subpart, item 5.b.i and footnote (1).

(4) The fenceline monitoring requirements specified in §63.2348, §63.2386(k), and §63.2390(i) according to the compliance dates specified in paragraph (f) of this section.

(5) The flare requirements specified in §63.2346(k), §63.2382(d)(2)(ix), §63.2386(d)(5), §63.2390(h), Table 2 to this subpart, footnote (1), Table 3 to this subpart, item 7.d, Table 8 to this subpart, items 1.a.iii and 2.a.iii, and Table 9 to this subpart, item 7.e.

(6) The requirements specified in §63.2346(m), §63.2350(d), §63.2366(c), §63.2390(f) and (g), §63.2386(c)(11) and (12), §63.2386(d)(1)(xiii) and (f) through (j), §63.2378(e), Table 9 to this subpart, footnote (1), and Table 10 to this subpart, items 1.a.i and 2.a.ii.

(7) The performance testing requirements specified in §63.2354(b)(6).

(f) For each OLD operation complying with the requirements in §63.2348:

(1) An affected source that commenced construction or reconstruction on or before **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, must submit modeling results, proposed analytes, and action levels according to the requirements of §63.2348(b) upon initial startup or **[date 1 year after date of publication of final rule in the Federal Register]**, whichever is later. All affected sources that commenced construction or reconstruction after **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, must submit modeling results, proposed analytes and action levels according to the requirements of §63.2348(b) as part of your permit application for the new OLD operations.

(2) An affected source that commenced construction or reconstruction on or before **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, must obtain approval of the modeling results, proposed analytes, and action levels submitted in paragraph (f)(1) of this section and be in compliance with all requirements of §63.2348 upon initial startup or **[date 2 years after date of publication of final rule in the Federal Register]**, whichever is later. An affected source that commenced construction or reconstruction after **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, must obtain approval of the modeling results, proposed analytes, and action levels submitted in paragraph (f)(1) of this section and must be in compliance with all requirements listed in §63.2348 by initial startup.

5. Section 63.2343 is amended by:

- a. Revising the introductory text, paragraph (a), and paragraph (b) introductory text;
- b. Adding paragraphs (b)(4) through (b)(7);
- c. Revising paragraph (c)(1)(iii); and
- d. Adding paragraph (e).

The revisions and additions read as follows:

§63.2343 What are my requirements for emission sources not requiring control?

This section establishes the notification, recordkeeping, and reporting requirements for emission sources identified in §63.2338 that do not require control under this subpart (*i.e.*, under §63.2346(a) through (e)). Such emission sources are not subject to any other notification, recordkeeping, or reporting sections in this subpart, including §63.2350(c), except as indicated in paragraphs (a) through (e) of this section.

(a) For each storage tank subject to this subpart having a capacity of less than 18.9 cubic meters (5,000 gallons), you must comply with paragraph (e) of this section. Also, for each storage tank subject to this subpart having a capacity of less than 18.9 cubic meters (5,000 gallons) and for each transfer rack subject to this subpart that only unloads organic liquids (*i.e.*, no organic liquids are loaded at any of the transfer racks), you must keep documentation that verifies that each storage tank and transfer rack identified in paragraph (a) of this section is not required to be controlled. The documentation must be kept up-to-date (*i.e.*, all such emission sources at a facility are identified in the documentation regardless of when the documentation was last compiled) and must be in a form suitable and readily available for expeditious inspection and review according to §63.10(b)(1), including records stored in electronic form in a separate location. The documentation may consist of identification of the tanks and transfer racks

identified in paragraph (a) of this section on a plant site plan or process and instrumentation diagram (P&ID).

(b) Except as specified in paragraph (b)(7) of this section, for each storage tank subject to this subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 to this subpart, items 1 through 6, you must comply with the requirements specified in paragraphs (b)(1) through (6) of this section.

* * * * *

(4) Beginning no later than the compliance dates specified in §63.2342(e), you must monitor each potential source of vapor leakage from each fixed roof storage tank and its closure devices for leaks as specified in paragraphs (b)(4)(i) through (iii) of this section.

(i) Conduct monitoring using Method 21 of part 60, appendix A-7 of this chapter within 90 days after the initial fill. You must conduct subsequent monitoring no later than 1 year after previous monitoring is performed, provided the fixed roof storage tank contains organic liquid.

(A) Calibrate the instrument before use on the day of its use according to the procedures in Method 21 of 40 CFR part 60, appendix A-7 of this chapter. Calibration gases must be zero air and a mixture of methane in air at a concentration of no greater than 2,000 parts per million.

(B) Perform a calibration drift assessment, at a minimum, at the end of each monitoring day using the same calibration gas that was used to calibrate the instrument before use. Follow the procedures in Section 10.1 of Method 21 of part 60, appendix A-7 to this chapter, except do not adjust the meter readout to correspond to the calibration gas value. Divide the arithmetic difference of the initial and post-test calibration response by the corresponding calibration gas value and multiply by 100 to express the calibration drift as a percentage.

(C) If the calibration drift assessment shows a negative drift of more than 10 percent from the initial calibration response, you must re-monitor all equipment monitored since the last calibration with instrument readings below the appropriate leak definition and above the leak definition multiplied by (100 minus the percent of negative drift/divided by 100).

(ii) An instrument reading of 500 parts per million by volume (ppmv) or greater defines a leak.

(iii) When a leak is identified, you must either complete repairs or completely empty the fixed roof storage tank within 45 days. If a repair cannot be completed or the fixed roof storage tank cannot be completely emptied within 45 days, you may use up to two extensions of up to 30 additional days each. Keep records documenting each decision to use an extension, as specified in paragraphs (b)(4)(iii)(A) through (C) of this section. Not repairing or emptying the fixed roof storage tank within the time frame specified in this paragraph is a deviation. If you do not empty or repair leaks before the end of the second extension period, report the date when the fixed roof storage tank was emptied or repaired in your compliance report.

(A) Records for a first extension must include a description of the defect, documentation that alternative storage capacity was unavailable in the 45-day period after the inspection and a schedule of actions that you took in an effort to either repair or completely empty the fixed roof storage tank during the extension period.

(B) For a second extension, if needed, you must maintain records documenting that alternative storage capacity was unavailable during the first extension period and a schedule of the actions you took to ensure that the fixed roof storage tank was completely emptied or repaired by the end of the second extension period.

(C) Record the date on which the fixed roof storage tank was completely emptied, if applicable.

(5) Beginning no later than the compliance dates specified in §63.2342(e), you must conduct periodic vapor pressure analyses or obtain vapor pressure analysis data from the organic liquid supplier according to the schedule specified in paragraphs (b)(5)(i) and (ii) of this section to demonstrate that the annual average true vapor pressure of the organic liquid associated with each storage tank is below control thresholds. For each periodic vapor pressure analysis, you must use ASTM D6378-18a (incorporated by reference, see §63.14), a vapor to liquid ratio of 4:1, and the actual annual average temperature as defined in this subpart. Maintain records of each periodic annual average true vapor pressure analysis according to the requirements of §63.2394.

(i) For each existing affected source, and for each new and reconstructed affected source that commences construction or reconstruction after April 2, 2002, and on or before **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, you must obtain analysis data or conduct the first periodic vapor pressure analysis on or before **[date 3 years after date of publication of final rule in the Federal Register]** and obtain analysis data or conduct subsequent periodic vapor pressure analyses no later than 60 months thereafter following the previous analysis, or if the contents of storage tank are a different commodity since the previous analysis, whichever occurs first.

(ii) For each new and reconstructed affected source that commences construction or reconstruction after **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, you must obtain analysis data or conduct the first periodic vapor pressure analysis no later than 60 months following the initial analysis required by §63.2358 and obtain analysis data or

conduct subsequent periodic vapor pressure analyses no later than 60 months thereafter following the previous analysis, or if the contents of storage tank are a different commodity since the previous analysis, whichever occurs first.

(6) Beginning no later than the compliance dates specified in §63.2342(e), you must conduct periodic HAP content analyses or obtain HAP content analysis data from the organic liquid supplier according to the schedule specified in paragraphs (b)(6)(i) and (ii) of this section to demonstrate that the HAP content of the organic liquid associated with each storage tank is below control thresholds. For each periodic HAP content analysis, you must use the procedures specified in §63.2354(c), except you may not use voluntary consensus standards, safety data sheets (SDS), or certified product data sheets. Maintain records of each periodic HAP content analysis according to the requirements of §63.2394.

(i) For each existing affected source, and for each new and reconstructed affected source that commences construction or reconstruction after April 2, 2002, and on or before **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, you must obtain analysis data or conduct the first periodic HAP content analysis on or before **[date 3 years after date of publication of final rule in the Federal Register]** and obtain analysis data or conduct subsequent periodic HAP content analyses no later than 60 months thereafter following the previous analysis, or if the contents of storage tank have changed significantly since the previous analysis, whichever occurs first.

(ii) For each new and reconstructed affected source that commences construction or reconstruction after **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, you must obtain analysis data or conduct the first periodic HAP content analysis no later than 60 months following the initial analysis required by §63.2358 and obtain analysis data or conduct

subsequent periodic HAP content analyses no later than 60 months thereafter following the previous analysis, or if the contents of storage tank have changed significantly since the previous analysis, whichever occurs first.

(7) Beginning no later than the compliance dates specified in §63.2342(e), the conditions specified in paragraphs (b)(7)(i) and (ii) apply.

(i) Except as specified in paragraph (b)(7)(ii) of this section, the requirements specified in paragraphs (b)(1) through (6) of this section apply to the following storage tanks:

(A) Storage tanks at an existing affected source subject to this subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that are not subject to control based on the criteria specified in Table 2b of this subpart, items 1 through 3.

(B) Storage tanks at a reconstructed or new affected source subject to this subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that are not subject to control based on the criteria specified in Table 2 to this subpart, items 3 through 6.

(ii) If you choose to meet the fenceline monitoring requirements specified in §63.2348, then you are not required to comply with paragraphs (b)(4) and (b)(7)(i) of this section. Instead, you may continue to comply with paragraphs (b)(1) through (3) of this section for each storage tank subject to this subpart having a capacity of 18.9 cubic meters (5,000 gallons) or more that is not subject to control based on the criteria specified in Table 2 to this subpart, items 1 through 6.

(c) * * *

(1) * * *

(iii) If you are already submitting a Notification of Compliance Status or a first Compliance report under §63.2386(c), you do not need to submit a separate Notification of Compliance Status or first Compliance report for each transfer rack that meets the conditions

identified in paragraph (c) of this section (*i.e.*, a single Notification of Compliance Status or first Compliance report should be submitted).

* * * * *

(e) Beginning no later than the compliance dates specified in §63.2342(e), for each fixed roof storage tank having a capacity less than 18.9 cubic meters (5,000 gallons) but greater than 3.8 cubic meters (1,000 gallons) storing an organic liquid with an annual average true vapor pressure greater than 10.3 kilopascals (1.5 psia), you must monitor each closure device and potential source of vapor leakage as specified in paragraphs (e)(1) through (3) of this section.

(1) Conduct monitoring using Method 21 of part 60, appendix A-7 of this chapter within 90 days after the initial fill. You must conduct subsequent monitoring no later than 1 year after the previous monitoring is performed, provided the fixed roof storage tank contains organic liquid.

(i) Calibrate the instrument before use on the day of its use according to the procedures in Method 21 of 40 CFR part 60, appendix A-7 of this chapter. Calibration gases must be zero air and a mixture of methane in air at a concentration of no greater than 2,000 parts per million.

(ii) Perform a calibration drift assessment, at a minimum, at the end of each monitoring day using the same calibration gas that was used to calibrate the instrument before use. Follow the procedures in Section 10.1 of Method 21 of part 60, appendix A-7 to this chapter, except do not adjust the meter readout to correspond to the calibration gas value. Divide the arithmetic difference of the initial and post-test calibration response by the corresponding calibration gas value and multiply by 100 to express the calibration drift as a percentage.

(iii) If the calibration drift assessment shows a negative drift of more than 10 percent, you must re-monitor all equipment monitored since the last calibration.

(2) An instrument reading of 500 ppmv or greater defines a leak.

(3) When a leak is identified, you must either complete repairs or completely empty the fixed roof storage tank within 45 days. If a repair cannot be completed or the fixed roof storage tank cannot be completely emptied within 45 days, you may use up to two extensions of up to 30 additional days each. Keep records documenting each decision to use an extension, as specified in paragraphs (e)(3)(i) through (iii) of this section. Not repairing or emptying the fixed roof storage tank within the time frame specified in this paragraph is a deviation. If you do not empty or repair leaks before the end of the second extension period, report the date when the fixed roof storage tank was emptied or repaired in your compliance report.

(i) Records for a first extension must include a description of the defect, documentation that alternative storage capacity was unavailable in the 45-day period after the inspection and a schedule of actions that you took in an effort to either repair or completely empty the fixed roof storage tank during the extension period.

(ii) For a second extension, if needed, you must maintain records documenting that alternative storage capacity was unavailable during the first extension period and a schedule of the actions you took to ensure that the fixed roof storage tank was completely emptied or repaired by the end of the second extension period.

(iii) Record the date on which the fixed roof storage tank was completely emptied, if applicable.

6. Section 63.2346 is amended by:

- a. Revising paragraph (a) introductory text, paragraphs (a)(1), (a)(2), (a)(4)(ii), (a)(4)(iv), paragraph (a)(4)(v) introductory text, and paragraph (a)(4)(v)(A);
- b. Adding paragraphs (a)(5) and (a)(6);

- c. Revising paragraphs (b)(1), (b)(2), (c), (d)(2), (e), (f) and (i); and
- b. Adding paragraphs (k), (l), and (m).

The revisions and additions read as follows:

§63.2346 What emission limitations, operating limits, and work practice standards must I meet?

(a) *Storage tanks.* Except as specified in paragraph (a)(5) and (m) of this section, for each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, items 1 through 5, you must comply with paragraph (a)(1), (2), (3), or (4) of this section. For each storage tank storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2 to this subpart, item 6, you must comply with paragraph (a)(1), (2), or (4) of this section.

(1) Meet the emission limits specified in Table 2 or 2b to this subpart and comply with paragraph (m) of this section and the applicable requirements specified in 40 CFR part 63, subpart SS, for meeting emission limits, except substitute the term “storage tank” at each occurrence of the term “storage vessel” in subpart SS.

(2) Route emissions to fuel gas systems or back into a process as specified in 40 CFR part 63, subpart SS. If you comply with this paragraph, then you must also comply with the requirements specified in paragraph (m) of this section.

* * * * *

(4) * * *

(ii) Transport vehicles must have a current certification in accordance with the United States Department of Transportation (U.S. DOT) qualification and maintenance requirements of 49 CFR part 180, subpart E for cargo tanks and subpart F for tank cars.

* * * * *

(iv) No pressure relief device on the storage tank, on the vapor return line, or on the cargo tank or tank car, shall open during loading or as a result of diurnal temperature changes (breathing losses).

(v) Pressure relief devices must be set to no less than 2.5 pounds per square inch gauge (psig) at all times to prevent breathing losses. Pressure relief devices may be set at values less than 2.5 psig if the owner or operator provides rationale in the notification of compliance status report explaining why the alternative value is sufficient to prevent breathing losses at all times. The owner or operator shall comply with paragraphs (a)(4)(v)(A) through (C) of this section for each relief valve.

(A) The relief valve shall be monitored quarterly using the method described in §63.180(b).

* * * * *

(5) Except as specified in paragraph (a)(6) of this section, beginning no later than the compliance dates specified in §63.2342(e), the tank capacity criteria, liquid vapor pressure criteria, and emission limits specified for storage tanks at an existing affected source in Table 2 of this subpart, item 1 no longer apply. Instead, for each storage tank at an existing affected source storing organic liquids that meets the tank capacity and liquid vapor pressure criteria for control in Table 2b to this subpart, items 1 through 3, you must comply with paragraph (a)(1), (2), (3), or (4) of this section.

(6) If you choose to meet the fenceline monitoring requirements specified in §63.2348, then you are not required to comply with paragraph (a)(5) of this section. Instead, you may

continue to comply with the tank capacity and liquid vapor pressure criteria and the emission limits specified for storage tanks at an existing affected source in Table 2 of this subpart, item 1.

(b) * * *

(1) Meet the emission limits specified in Table 2 to this subpart and comply with paragraph (m) of this section and the applicable requirements for transfer racks specified in 40 CFR part 63, subpart SS, for meeting emission limits.

(2) Route emissions to fuel gas systems or back into a process as specified in 40 CFR part 63, subpart SS. If you comply with this paragraph, then you must also comply with the requirements specified in paragraph (m) of this section.

* * * * *

(c) *Equipment leak components.* Except as specified in paragraph (l) of this section, for each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year, you must comply with paragraph (m) of this section and the applicable requirements under 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H. Pumps, valves, and sampling connectors that are insulated to provide protection against persistent sub-freezing temperatures are subject to the “difficult to monitor” provisions in the applicable subpart selected by the owner or operator. This paragraph only applies if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 or 2b to this subpart.

(d) * * *

(2) Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. DOT qualification and maintenance requirements in 49 CFR part 180, subpart E for cargo tanks and subpart F for tank cars.

(e) *Operating limits.* For each high throughput transfer rack, you must meet each operating limit in Table 3 to this subpart for each control device used to comply with the provisions of this subpart whenever emissions from the loading of organic liquids are routed to the control device. Except as specified in paragraph (k) of this section, for each storage tank and low throughput transfer rack, you must comply with paragraph (m) of this section and the requirements for monitored parameters as specified in 40 CFR part 63, subpart SS, for storage vessels and, during the loading of organic liquids, for low throughput transfer racks, respectively. Alternatively, you may comply with the operating limits in Table 3 to this subpart.

(f) *Surrogate for organic HAP.* For noncombustion devices, if you elect to demonstrate compliance with a percent reduction requirement in Table 2 or 2b to this subpart using total organic compounds (TOC) rather than organic HAP, you must first demonstrate, subject to the approval of the Administrator, that TOC is an appropriate surrogate for organic HAP in your case; that is, for your storage tank(s) and/or transfer rack(s), the percent destruction of organic HAP is equal to or higher than the percent destruction of TOC. This demonstration must be conducted prior to or during the initial compliance test.

* * * * *

(i) *Safety device.* Opening of a safety device is allowed at any time that it is required to avoid unsafe operating conditions. Beginning no later than **[date 3 years after date of publication of final rule in the Federal Register]**, this paragraph no longer applies.

* * * * *

(k) *Flares.* Beginning no later than the compliance dates specified in §63.2342(e), for each storage tank and low throughput transfer rack, if you vent emissions through a closed vent system to a flare then you must comply with the requirements specified in §63.2380 instead of

the requirements in §63.987 and the provisions regarding flare compliance assessments at §63.997(a), (b), and (c).

(1) *Equipment leak components.* Beginning no later than the compliance dates specified in §63.2342(e), paragraph (c) of this section no longer applies. Instead, you must comply with paragraph (l)(1) or (2) of this section.

(1) Except as specified in paragraph (l)(2) of this section, for each connector, pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year, you must comply with paragraph (m) of this section and the applicable requirements under 40 CFR part 63, subpart UU (control level 2), or subpart H. Connectors, pumps, valves, and sampling connectors that are insulated to provide protection against persistent sub-freezing temperatures are subject to the “difficult to monitor” provisions in the applicable subpart selected by the owner or operator. This paragraph only applies if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 or 2b to this subpart.

(2) If you choose to meet the fenceline monitoring requirements specified in §63.2348, then you may choose to comply with this paragraph instead of paragraph (l)(1) of this section. For each pump, valve, and sampling connection that operates in organic liquids service for at least 300 hours per year, you must comply with paragraph (m) of this section and the applicable requirements under 40 CFR part 63, subpart TT (control level 1), subpart UU (control level 2), or subpart H. Pumps, valves, and sampling connectors that are insulated to provide protection against persistent sub-freezing temperatures are subject to the “difficult to monitor” provisions in the applicable subpart selected by the owner or operator. This paragraph only applies if the

affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 or 2b to this subpart.

(m) *Start-up, shutdown, and malfunction*. Beginning no later than the compliance dates specified in §63.2342(e), the referenced provisions specified in paragraphs (m)(1) through (19) of this section do not apply when demonstrating compliance with 40 CFR part 63, subpart H, subpart SS, and subpart UU.

(1) The second sentence of §63.181(d)(5)(i) of subpart H.

(2) §63.983(a)(5) of subpart SS.

(3) The phrase “except during periods of start-up, shutdown, and malfunction as specified in the referencing subpart” in §63.984(a) of subpart SS.

(4) The phrase “except during periods of start-up, shutdown and malfunction as specified in the referencing subpart” in §63.985(a) of subpart SS.

(5) The phrase “other than start-ups, shutdowns, or malfunctions” in §63.994(c)(1)(ii)(D) of subpart SS.

(6) §63.996(c)(2)(ii) of subpart SS.

(7) §63.997(e)(1)(i) of subpart SS.

(8) The term “breakdowns” from §63.998(b)(2)(i) of subpart SS.

(9) §63.998(b)(2)(iii) of subpart SS.

(10) The phrase “other than periods of start-ups, shutdowns or malfunctions” from §63.998(b)(5)(i)(A) of subpart SS.

(11) The phrase “other than periods of start-ups, shutdowns or malfunctions” from §63.998(b)(5)(i)(C) of subpart SS.

(12) The phrase “, except as provided in paragraphs (b)(6)(i)(A) and (B) of this section” from §63.998(b)(6)(i) of subpart SS.

(13) The second sentence of §63.998(b)(6)(ii) of subpart SS.

(14) §63.998(c)(1)(ii)(D), (E), (F), and (G) of subpart SS.

(15) §63.998(d)(1)(ii) of subpart SS.

(16) §63.998(d)(3)(i) and (ii) of subpart SS.

(17) The phrase “(except periods of startup, shutdown, or malfunction)” from §63.1026(e)(1)(ii)(A) of subpart UU.

(18) The phrase “(except during periods of startup, shutdown, or malfunction)” from §63.1028(e)(1)(i)(A) of subpart UU.

(19) The phrase “(except during periods of startup, shutdown, or malfunction)” from §63.1031(b)(1) of subpart UU.

7. Section 63.2348 is added to read as follows:

§63.2348 What fenceline monitoring requirements must I meet?

(a) If you own or operate a facility that is not required to conduct fenceline monitoring pursuant to §63.658, then you may opt to conduct fenceline monitoring pursuant to this section. Beginning no later than the compliance dates specified in §63.2342(f), if you choose to comply with the requirements specified in §63.2343(b)(7)(ii) and §63.2346(a)(6) and (l)(2), then you must conduct sampling along the facility property boundary and analyze the samples in accordance with Methods 325A and 325B of appendix A of this part and paragraphs (b) through (k) of this section.

(b) You must determine your target analytes for monitoring and site-specific action level for each analyte as specified in paragraphs (b)(1) through (5) of this section.

(1) You must use EPA's Guidance on Determination of Analytes and Action Levels for Fenceline Monitoring of Organic Liquids Distribution Sources to develop your HAP emissions inventory and conduct your modeling. The HAP emissions inventory is set at allowable emissions from all equipment at the source under common control of the owner and operator of the OLD operation. For this modeling effort, modeled allowable emissions from storage tanks and equipment leaks must be adjusted to take into account the requirements at §§63.2343(b)(4), 63.2346(a)(5), and (l)(1) for the purpose of setting the analytes and action level of the fenceline monitoring program.

(2) You must determine at least one target analyte as prescribed in paragraphs (b)(2)(i) through (iv) of this section.

(i) Each analyte must have an available uptake rate at Table 12.1 of Method 325B of appendix A to this part or must have an uptake rate for the selected sorbent validated using Addendum A of Method 325B of appendix A to this part.

(ii) A HAP cannot be used to meet the fenceline monitoring requirements of this section unless the corresponding action level is at least five times the method detection limit for the HAP.

(iii) The first analyte is the Table 1 HAP with the most allowable emissions from OLD operations at the facility on an annual basis. If this HAP is emitted from all equipment that would have been subject to the requirements at §§63.2343(b)(4), 63.2346(a)(5), and (l)(1) had you not opted to implement fenceline monitoring according to this section, then no other analytes are required to be monitored. If this HAP is not emitted from all equipment that would have been subject to the requirements at §§63.2343(b)(4), 63.2346(a)(5), and (l)(1) had you not opted to

implement fenceline monitoring according to this section, then you must monitor additional analytes as outlined in paragraph (b)(2)(iv) of this section.

(iv) You must select additional analytes from Table 1 that best represent emissions of HAP from all OLD operations that do not emit the HAP selected in paragraph (b)(2)(iii) of this section and that would have been subject to the storage tank and connector monitoring requirements at §§63.2343(b)(4), 63.2346(a)(5), and (l)(1) had you not opted to implement fenceline monitoring according to this section. Select the Table 1 HAP having the most allowable emissions from this set of equipment. If the HAP selected in this step is not emitted from all the OLD equipment in this step, then repeat this step until at least one selected HAP is emitted from this set of equipment.

(3) The action level for each analyte selected in paragraph (b)(2) of this section is set as the highest modeled concentration of all fenceline user-defined receptors in the model results, expressed in micrograms per cubic meter, and rounded to two significant figures.

(4) You must submit the modeling results and proposed analytes and action levels to the Administrator no later than the date specified in §63.2342(f)(1).

(5) You must determine revised analytes or action levels when your title V permit is renewed; when other permit amendments decrease allowable emissions of any target analyte by more than 10 percent below emissions described in the modeling effort used to establish the current analytes and action levels; or upon issuance of a permit modification that results in the conditions of paragraph (b)(2) of this section no longer being met. You may choose to revise analytes or action levels at other times when changes at the source occur that would result in different modeling results. You must submit your revised modeling results and new proposed

analytes and action levels to the Administrator no later than 3 months after any permit renewal or amendment triggering model revisions has been issued.

(i) If a revised action level is determined for a currently monitored analyte, for the first year, the action level shall be calculated for each sample period as a weighted average of the previous action level and the new action level. After 26 sampling periods, the new action level takes effect. Beginning with the first biweekly sampling period following approval by the Administrator of the revised modeling, determine your weighted action level according to the following equation:

$$\text{Weighted Action Level} = \frac{(N_1 \times AL_1) + (N_2 \times AL_2)}{26}$$

Where:

N_1 = number of samples during the rolling annual period prior to change of action level

N_2 = number of samples during the rolling annual period since the change in action level

AL_1 = prior action level, $\mu\text{g}/\text{m}^3$

AL_2 = new action level, $\mu\text{g}/\text{m}^3$

26 = number of samples in an annual period

(ii) If revised modeling results eliminate an analyte that is currently being monitored, then once monitoring of that analyte stops, you are no longer subject to the requirement in paragraph (f) of this section to determine whether the action level has been exceeded. If the action level for the analyte hasn't been exceeded, you are no longer required to monitor that analyte starting in the biweekly period that begins following approval by the Administrator of the revised modeling. If the action level for the analyte has been exceeded, you must be below the action level for the analyte for one full year (26 sampling periods) before you stop monitoring for that analyte.

(iii) If revised modeling results establish a new analyte to be monitored, you must begin monitoring for the new analyte in the first biweekly period that begins following approval by the

Administrator of the revised modeling. You are not subject to the requirement in paragraph (f) of this section to determine whether the action level has been exceeded prior to collecting a full year (26 sampling periods) of monitoring data for the new analyte.

(c) You must determine passive monitor locations in accordance with Section 8.2 of Method 325A of appendix A to this part.

(1) As it pertains to this subpart, known sources of VOCs, as used in Section 8.2.1.3 in Method 325A of appendix A to this part for siting passive monitors, means any part of the affected source as defined in §63.2338(b). For this subpart, an additional monitor is not required if the only emission sources within 50 meters of the monitoring boundary are equipment leak sources satisfying all of the conditions in paragraphs (c)(1)(i) through (iv) of this section.

(i) The equipment leak sources in organic liquids service within 50 meters of the monitoring boundary are limited to valves, pumps, connectors, and sampling connections. If compressors, pressure relief devices, or agitators in organic liquids service are present within 50 meters of the monitoring boundary, the additional passive monitoring location specified in Section 8.2.1.3 in Method 325A of appendix A to this part must be used.

(ii) All equipment leak sources in in organic liquids service, including valves, pumps, connectors, and sampling connections must be monitored using Method 21 of 40 CFR part 60, appendix A-7 no less frequently than quarterly with no provisions for skip period monitoring, or according to the provisions of §63.11(c) Alternative Work practice for monitoring equipment for leaks. For the purpose of this provision, a leak is detected if the instrument reading equals or exceeds the applicable limits in paragraphs (c)(1)(ii)(A) through (E) of this section:

(A) For valves, pumps or connectors at an existing source, an instrument reading of 10,000 ppmv.

(B) For valves or connectors at a new source, an instrument reading of 500 ppmv.

(C) For pumps at a new source, an instrument reading of 2,000 ppmv.

(D) For sampling connections, an instrument reading of 500 ppmv above background.

(E) For equipment monitored according to the Alternative Work practice for monitoring equipment for leaks, the leak definitions contained in §63.11(c)(6)(i) through (iii).

(iii) All equipment leak sources in organic liquids service must be inspected using visual, audible, olfactory, or any other detection method at least monthly. A leak is detected if the inspection identifies a potential leak to the atmosphere or if there are indications of liquids dripping.

(iv) All leaks identified by the monitoring or inspections specified in paragraphs (c)(1)(ii) or (iii) of this section must be repaired no later than 15 calendar days after it is detected with no provisions for delay of repair. If a repair is not completed within 15 calendar days, the additional passive monitor specified in Section 8.2.1.3 in Method 325A of appendix A to this part must be used.

(2) You may collect one or more background samples if you believe that an offsite upwind source may influence the sampler measurements. If you elect to collect one or more background samples, you must develop and submit a site-specific monitoring plan for approval according to the requirements in paragraph (i) of this section. Upon approval of the site-specific monitoring plan, the background sampler(s) should be operated co-currently with the routine samplers.

(3) If there are 19 or fewer monitoring locations, you must collect at least one co-located duplicate sample per sampling period and at least one field blank per sampling period. If there are 20 or more monitoring locations, you must collect at least two co-located duplicate samples

per sampling period and at least one field blank per sampling period. The co-located duplicates may be collected at any of the perimeter sampling locations.

(4) You must follow the procedure in Section 9.6 of Method 325B of appendix A to this part to determine the detection limit of the analytes for each sampler used to collect samples, background samples (if you elect to do so), co-located samples and blanks.

(d) You must collect and record meteorological data according to the applicable requirements in paragraphs (d)(1) through (3) of this section.

(1) If a near-field source correction is used as provided in paragraph (i)(2) of this section or if an alternative test method is used that provides time-resolved measurements, you must:

(i) Use an on-site meteorological station in accordance with Section 8.3 of Method 325A of appendix A to this part.

(ii) Collect and record hourly average meteorological data, including temperature, barometric pressure, wind speed, and wind direction and calculate daily unit vector wind direction and daily sigma theta.

(2) For cases other than those specified in paragraph (d)(1) of this section, you must collect and record sampling period average temperature and barometric pressure using either an on-site meteorological station in accordance with Section 8.3.1 through 8.3.3 of Method 325A of appendix A to this part or, alternatively, using data from the closest National Weather Service (NWS) meteorological station provided the NWS meteorological station is within 40 kilometers (25 miles) of the plant site.

(3) If an on-site meteorological station is used, you must follow the calibration and standardization procedures for meteorological measurements in EPA-454/B-08-002 (incorporated by reference—see §63.14).

(e) You must use a sampling period and sampling frequency as specified in paragraphs (e)(1) through (3) of this section.

(1) *Sampling period.* A 14-day sampling period must be used, unless a shorter sampling period is determined to be necessary under paragraph (g) or (i) of this section. A sampling period is defined as the period during which a sampling tube is deployed at a specific sampling location with the diffusive sampling end cap in-place and does not include the time required to analyze the sample. For the purpose of this subpart, a 14-day sampling period may be no shorter than 13 calendar days and no longer than 15 calendar days, but the routine sampling period must be 14 calendar days.

(2) *Base sampling frequency.* Except as provided in paragraph (e)(3) of this section, the frequency of sample collection must be once each contiguous 14-day sampling period, such that the beginning of the next 14-day sampling period begins immediately upon the completion of the previous 14-day sampling period.

(3) *Alternative sampling frequency for burden reduction.* When an individual monitor consistently achieves results at or below one tenth of the corresponding action level for all monitored analytes, you may elect to use the applicable minimum sampling frequency specified in paragraphs (e)(3)(i) through (v) of this section for that monitoring site. When calculating the biweekly concentration difference (Δc) for the monitoring period when using this alternative for burden reduction, substitute zero for the sample result for the monitoring site for any period where a sample is not taken.

(i) If every sample at a monitoring site is at or below one tenth of the corresponding action level for all monitored analytes for 2 years (52 consecutive samples), every other

sampling period can be skipped for that monitoring site, *i.e.*, sampling will occur approximately once per month.

(ii) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (e)(3)(i) of this section is at or below one tenth of the corresponding action level for all monitored analytes for 2 years (*i.e.*, 26 consecutive “monthly” samples), five 14-day sampling periods can be skipped for that monitoring site following each period of sampling, *i.e.*, sampling will occur approximately once per quarter.

(iii) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (e)(3)(ii) of this section is at or below one tenth of the corresponding action level for all monitored analytes for 2 years (*i.e.*, 8 consecutive quarterly samples), twelve 14-day sampling periods can be skipped for that monitoring site following each period of sampling, *i.e.*, sampling will occur twice a year.

(iv) If every sample at a monitoring site that is monitored at the frequency specified in paragraph (e)(3)(iii) of this section is at or below one tenth of the corresponding action level for all monitored analytes for 2 years (*i.e.*, 4 consecutive semiannual samples), only one sample per year is required for that monitoring site. For yearly sampling, samples must occur at least 10 months but no more than 14 months apart.

(v) If at any time a sample for a monitoring site that is monitored at the frequency specified in paragraphs (e)(3)(i) through (iv) of this section returns a result that is above one tenth of the corresponding action level for any analyte, the sampling site must return to the original sampling requirements of contiguous 14-day sampling periods with no skip periods for one quarter (six 14-day sampling periods). If every sample collected during this quarter is at or below one tenth of the corresponding action level for all monitored analytes, you may revert

back to the reduced monitoring schedule applicable for that monitoring site prior to the sample reading exceeding one tenth of the action level. If any sample collected during this quarter is above one tenth of the corresponding action level for any analyte, that monitoring site must return to the original sampling requirements of contiguous 14-day sampling periods with no skip periods for a minimum of 2 years. The burden reduction requirements can be used again for that monitoring site once the requirements of paragraph (e)(3)(i) of this section are met again, *i.e.*, after 52 contiguous 14-day samples with no results above one tenth of the corresponding action level for all monitored analytes.

(f) Within 45 days of completion of each sampling period, you must determine whether the results are above or below the corresponding action level for each analyte as follows:

(1) You must determine the facility impact on the analyte concentration difference (Δc) for each analyte for each 14-day sampling period according to either paragraph (f)(1)(i) or (ii) of this section, as applicable.

(i) Except when near-field source correction is used as provided in paragraph (i) of this section, for each analyte, you must determine the highest and lowest sample results from the sample pool and calculate Δc as the difference in these concentrations. Co-located samples must be averaged together for the purposes of determining the analyte concentration for that sampling location, and, if applicable, for determining Δc . You must adhere to the following procedures when one or more samples for the sampling period are below the method detection limit for an analyte:

(A) If the lowest value of an analyte is below detection, you must use zero as the lowest sample result when calculating Δc .

(B) If all sample results for a particular analyte are below the method detection limit, you must use the method detection limit as the highest sample result and zero as the lowest sample result when calculating Δc .

(ii) When near-field source correction is used as provided in paragraph (i) of this section, you must determine Δc using the calculation protocols outlined in the approved site-specific monitoring plan and in paragraph (i) of this section.

(2) For each analyte, you must calculate the annual average Δc based on the average of the 26 most recent 14-day sampling periods. You must update this annual average value after receiving the results of each subsequent 14-day sampling period.

(3) If the annual average Δc value for an analyte is less than or equal to the corresponding action level determined in paragraph (b) of this section, the concentration is below the action level. If the annual average Δc value for any analyte is greater than the corresponding action level determined in paragraph (b) of this section, then you must conduct a root cause analysis and corrective action in accordance with paragraph (g) of this section.

(g) Within 5 days of determining that the action level for any analyte has been exceeded for any annual average Δc and no longer than 50 days after completion of the sampling period in which the action level was first exceeded, you must initiate a root cause analysis to determine the cause of such exceedance and to determine appropriate corrective action, such as those described in paragraphs (g)(1) through (4) of this section. The root cause analysis and initial corrective action analysis must be completed and initial corrective actions taken no later than 45 days after determining there is an exceedance. Root cause analysis and corrective action may include, but is not limited to:

(1) Leak inspection using Method 21 of part 60, appendix A-7 of this chapter and repairing any leaks found.

(2) Leak inspection using optical gas imaging and repairing any leaks found.

(3) Visual inspection to determine the cause of the high emissions and implementing repairs to reduce the level of emissions.

(4) Employing progressively more frequent sampling, analysis and meteorology (*e.g.*, using shorter sampling periods for Methods 325A and 325B of appendix A of this part, or using active sampling techniques).

(h) If, upon completion of the corrective action analysis and corrective actions such as those described in paragraph (g) of this section, the Δc value for the next 14-day sampling period for which the sampling start time begins after the completion of the corrective actions is greater than the action level for the same analyte that previously exceed the action level or if all corrective action measures identified require more than 45 days to implement, you must develop a corrective action plan that describes the corrective action(s) completed to date, additional measures that you propose to employ to reduce fenceline concentrations below the action level, and a schedule for completion of these measures. You must submit the corrective action plan to the Administrator within 60 days after receiving the analytical results indicating that the Δc value for the 14-day sampling period following the completion of the initial corrective action is greater than the action level or, if no initial corrective actions were identified, no later than 60 days following the completion of the corrective action analysis required in paragraph (g) of this section.

(i) You may request approval from the Administrator for a site-specific monitoring plan to account for offsite upwind sources according to the requirements in paragraphs (i)(1) through (4) of this section.

(1) You must prepare and submit a site-specific monitoring plan and receive approval of the site-specific monitoring plan prior to using the near-field source alternative calculation for determining Δc provided in paragraph (i)(2) of this section. The site-specific monitoring plan must include, at a minimum, the elements specified in paragraphs (i)(1)(i) through (v) of this section. The procedures in Section 12 of Method 325A of appendix A of this part are not required, but may be used, if applicable, when determining near-field source contributions.

(i) Identification of the near-field source or sources.

(ii) Location of the additional monitoring stations that must be used to determine the uniform background concentration and the near-field source concentration contribution.

(iii) Identification of the fenceline monitoring locations impacted by the near-field source. If more than one near-field source is present, identify the near-field source or sources that are expected to contribute to the concentration at that monitoring location.

(iv) A description of (including sample calculations illustrating) the planned data reduction and calculations to determine the near-field source concentration contribution for each monitoring location.

(v) If more frequent monitoring or a monitoring station other than a passive diffusive tube monitoring station is proposed, provide a detailed description of the measurement methods, measurement frequency, and recording frequency for determining the uniform background or near-field source concentration contribution. Uniform background and near-field source

concentration contributions must be determined by a real-time or semi-continuous measurement technique that can be reconciled with the measurements taken using the passive diffusive tubes.

(2) When an approved site-specific monitoring plan is used, for each analyte covered by the site-specific monitoring plan, you must determine Δc for comparison with the corresponding action level using the requirements specified in paragraphs (i)(2)(i) through (iii) of this section.

(i) For each monitoring location, calculate Δc_i using the following equation.

$$\Delta c_i = MFC_i - NFS_i - UB$$

Where:

Δc_i = The fenceline concentration, corrected for background, at measurement location i, micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).

MFC_i = The measured fenceline concentration at measurement location i, $\mu\text{g}/\text{m}^3$.

NFS_i = The near-field source contributing concentration at measurement location i determined using the additional measurements and calculation procedures included in the site-specific monitoring plan, $\mu\text{g}/\text{m}^3$. For monitoring locations that are not included in the site-specific monitoring plan as impacted by a near-field source, use $NFS_i = 0 \mu\text{g}/\text{m}^3$.

UB = The uniform background concentration determined using the additional measurements included in the site-specific monitoring plan, $\mu\text{g}/\text{m}^3$. If no additional measurements are specified in the site-specific monitoring plan for determining the uniform background concentration, use $UB = 0 \mu\text{g}/\text{m}^3$.

(ii) When one or more samples for the sampling period are below the method detection limit for an analyte, adhere to the following procedures:

(A) If the analyte concentration at the monitoring location used for the uniform background concentration is below the method detection limit, you must use zero for UB for that monitoring period.

(B) If the analyte concentration at the monitoring location(s) used to determine the near-field source contributing concentration is below the method detection limit, you must use zero for the monitoring location concentration when calculating NFS_i for that monitoring period.

(C) If a fenceline monitoring location sample result is below the method detection limit, you must use the method detection limit as the sample result.

(iii) Determine Δc for the monitoring period as the maximum value of Δc_i from all of the fenceline monitoring locations for that monitoring period.

(3) The site-specific monitoring plan must be submitted and approved as described in paragraphs (i)(3)(i) through (iv) of this section.

(i) The site-specific monitoring plan must be submitted to the Administrator for approval.

(ii) The site-specific monitoring plan must also be submitted to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (E143-01), Attention: Organic Liquids Distribution Lead, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies may also be submitted to *oldrtr@epa.gov*.

(iii) The Administrator must approve or disapprove the plan in 90 days. The plan is considered approved if the Administrator either approves the plan in writing or fails to disapprove the plan in writing. The 90-day period must begin when the Administrator receives the plan.

(iv) If the Administrator finds any deficiencies in the site-specific monitoring plan and disapproves the plan in writing, you may revise and resubmit the site-specific monitoring plan following the requirements in paragraphs (i)(3)(i) and (ii) of this section. The 90-day period starts over with the resubmission of the revised monitoring plan.

(4) The approval by the Administrator of a site-specific monitoring plan will be based on the completeness, accuracy and reasonableness of the request for a site-specific monitoring plan. Factors that the Administrator will consider in reviewing the request for a site-specific monitoring plan include, but are not limited to, those described in paragraphs (i)(4)(i) through (vii) of this section.

- (i) The identification of the near-field source or sources.
- (ii) The monitoring location selected to determine the uniform background concentration or an indication that no uniform background concentration monitor will be used.
- (iii) The location(s) selected for additional monitoring to determine the near-field source concentration contribution.
- (iv) The identification of the fenceline monitoring locations impacted by the near-field source or sources.
- (v) The appropriateness of the planned data reduction and calculations to determine the near-field source concentration contribution for each monitoring location.
- (vi) If more frequent monitoring is proposed, the adequacy of the description of the measurement and recording frequency proposed and the adequacy of the rationale for using the alternative monitoring frequency.
- (vii) The appropriateness of the measurement technique selected for determining the uniform background and near-field source concentration contributions.
- (j) You must comply with the applicable recordkeeping requirements in §63.2390(i) and reporting requirements in §63.2386(k).
- (k) As outlined in §63.7(f), you may submit a request for an alternative test method. At a minimum, the request must follow the requirements outlined in paragraphs (k)(1) through (7) of this section.
 - (1) The alternative method may be used in lieu of all or a partial number of passive samplers required in Method 325A of appendix A of this part.

(2) The alternative method must be validated for each analyte according to Method 301 in appendix A of this part or contain performance-based procedures and indicators to ensure self-validation.

(3) The method detection limit must nominally be no greater than one fifth of the action level for each analyte. The alternate test method must describe the procedures used to provide field verification of the detection limit.

(4) The spatial coverage must be equal to or better than the spatial coverage provided in Method 325A of appendix A of this part.

(i) For path average concentration open-path instruments, the physical path length of the measurement must be no more than a passive sample footprint (the spacing that would be provided by the sorbent traps when following Method 325A). For example, if Method 325A requires spacing monitors A and B 610 meters (2,000 feet) apart, then the physical path length limit for the measurement at that portion of the fenceline must be no more than 610 meters (2,000 feet).

(ii) For range resolved open-path instrument or approach, the instrument or approach must be able to resolve an average concentration over each passive sampler footprint within the path length of the instrument.

(iii) The extra samplers required in Sections 8.2.1.3 of Method 325A may be omitted when they fall within the path length of an open-path instrument.

(5) At a minimum, non-integrating alternative test methods must provide a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(6) For alternative test methods capable of real time measurements (less than a 5-minute sampling and analysis cycle), the alternative test method may allow for elimination of data points corresponding to outside emission sources for purpose of calculation of the high point for the two week average. The alternative test method approach must have wind speed, direction and stability class of the same time resolution and within the footprint of the instrument.

(7) For purposes of averaging data points to determine the Δc for the 14-day average high sample result, all results measured under the method detection limit must use the method detection limit. For purposes of averaging data points for the 14-day average low sample result, all results measured under the method detection limit must use zero.

8. Section 63.2350 is revised to read as follows:

§63.2350 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations, operating limits, and work practice standards in this subpart at all times when the equipment identified in §63.2338(b)(1) through (5) is in OLD operation.

(b) Except as specified in paragraph (d) of this section, you must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(c) Except for emission sources not required to be controlled as specified in §63.2343, you must develop a written startup, shutdown, and malfunction (SSM) plan according to the provisions in §63.6(e)(3). Beginning no later than **[date 3 years after date of publication of final rule in the Federal Register]**, this paragraph no longer applies; however, for historical compliance purposes, a copy of the plan must be retained and available on-site for five years after **[date 3 years after date of publication of final rule in the Federal Register]**.

(d) Beginning no later than the compliance dates specified in §63.2342(e), paragraph (b) of this section no longer applies. Instead, at all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by the applicable standard have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

9. Section 63.2354 is amended by:

- a. Revising paragraphs (a)(2), (a)(3), (b)(1), (b)(3)(i), and (b)(3)(ii);
- b. Adding paragraph (b)(3)(iii);
- c. Revising paragraphs (b)(4) and (b)(5);
- d. Adding paragraph (b)(6);
- e. Revising paragraph (c); and
- f. Adding paragraph (d).

The revisions and additions read as follows:

§63.2354 What performance tests, design evaluations, and performance evaluations must I conduct?

(a) * * *

(2) For each design evaluation you conduct, you must use the procedures specified in 40 CFR part 63, subpart SS. You must also comply with the requirements specified in §63.2346(m).

(3) For each performance evaluation of a continuous emission monitoring system (CEMS) you conduct, you must follow the requirements in §63.8(e) and paragraph (d) of this section. For CEMS installed after the compliance date specified in §63.2342(e), conduct a performance evaluation of each CEMS within 180 days of installation of the monitoring system.

(b) (1) Except as specified in paragraph (b)(6) of this section, for nonflare control devices, you must conduct each performance test according to the requirements in §63.7(e)(1), and either §63.988(b), §63.990(b), or §63.995(b), using the procedures specified in §63.997(e).

* * * * *

(3) (i) In addition to Method 25 or 25A of 40 CFR part 60, appendix A-7, to determine compliance with the TOC emission limit, you may use Method 18 of 40 CFR part 60, appendix A-6 or Method 320 of appendix A to this part to determine compliance with the total organic HAP emission limit. You may not use Method 18 or Method 320 of appendix A to this part if the control device is a combustion device, and you must not use Method 320 of appendix A to this part if the gas stream contains entrained water droplets. All compounds quantified by Method 320 of appendix A to this part must be validated according to Section 13.0 of Method 320 of appendix A to this part. As an alternative to Method 18, for determining compliance with the total organic HAP emission limit, you may use ASTM D6420-18 (incorporated by reference, see §63.14), under the conditions specified in paragraph (b)(3)(ii) of this section.

(A) If you use Method 18 of 40 CFR part 60, appendix A-6 or Method 320 of appendix A to this part to measure compliance with the percentage efficiency limit, you must first determine which organic HAP are present in the inlet gas stream (*i.e.*, uncontrolled emissions) using knowledge of the organic liquids or the screening procedure described in Method 18. In conducting the performance test, you must analyze samples collected simultaneously at the inlet

and outlet of the control device. Quantify the emissions for the same organic HAP identified as present in the inlet gas stream for both the inlet and outlet gas streams of the control device.

(B) If you use Method 18 of 40 CFR part 60, appendix A-6 or Method 320 of appendix A to this part, to measure compliance with the emission concentration limit, you must first determine which organic HAP are present in the inlet gas stream using knowledge of the organic liquids or the screening procedure described in Method 18. In conducting the performance test, analyze samples collected as specified in Method 18 at the outlet of the control device. Quantify the control device outlet emission concentration for the same organic HAP identified as present in the inlet or uncontrolled gas stream.

(ii) You may use ASTM D6420-18 (incorporated by reference, see §63.14), to determine compliance with the total organic HAP emission limit if the target concentration for each HAP is between 150 parts per billion by volume and 100 ppmv and either of the conditions specified in paragraph (b)(2)(ii)(A) or (B) of this section exists. For target compounds not listed in Section 1.1 of ASTM D6420-18 and not amenable to detection by mass spectrometry, you may not use ASTM D6420-18.

(A) The target compounds are those listed in Section 1.1 of ASTM D6420-18 (incorporated by reference, see §63.14); or

(B) For target compounds not listed in Section 1.1 of ASTM D6420-18 (incorporated by reference, see §63.14), but potentially detected by mass spectrometry, you must demonstrate recovery of the compound and the additional system continuing calibration check after each run, as detailed in ASTM D6420-18, Section 10.5.3, must be followed, met, documented, and submitted with the data report, even if there is no moisture condenser used or the compound is not considered water-soluble.

(iii) You may use ASTM D6348-12e1 (incorporated by reference, see §63.14) instead of Method 320 of appendix A to this part under the conditions specified in footnote 4 of table 5 to this subpart.

(4) If a principal component of the uncontrolled or inlet gas stream to the control device is formaldehyde, you must use Method 316, Method 320, or Method 323 of appendix A to this part for measuring the formaldehyde, except you must not use Method 320 or Method 323 of appendix A to this part if the gas stream contains entrained water droplets. If you use Method 320 of appendix A to this part, formaldehyde must be validated according to Section 13.0 of Method 320 of appendix A to this part. You must measure formaldehyde either at the inlet and outlet of the control device to determine control efficiency or at the outlet of a combustion device for determining compliance with the emission concentration limit. You may use ASTM D6348-12e1 (incorporated by reference, see §63.14) instead of Method 320 of appendix A to this part under the conditions specified in footnote 4 of table 5 to this subpart.

(5) Except as specified in paragraph (b)(6) of this section, you may not conduct performance tests during periods of SSM, as specified in §63.7(e)(1).

(6) Beginning no later than the compliance dates specified in §63.2342(e), paragraphs (b)(1) and (5) of this section no longer apply. Instead, you must conduct each performance test according to the requirements in paragraphs (b)(6)(A) and (B) of this section.

(A) In lieu of the requirements specified in §63.7(e)(1), you must conduct performance tests under such conditions as the Administrator specifies based on representative performance of the affected source for the period being tested. Representative conditions exclude periods of startup and shutdown. You may not conduct performance tests during periods of malfunction. You must record the process information that is necessary to document operating conditions

during the test and include in such record an explanation to support that such conditions represent normal operation. Upon request, you must make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(B) Pursuant to paragraph (b)(6)(A) of this section, you must conduct each performance test according to the requirements in either §63.988(b), §63.990(b), or §63.995(b), using the procedures specified in §63.997(e). You must also comply with the requirements specified in §63.2346(m).

(c) To determine the HAP content of the organic liquid, you may use Method 311 of appendix A to this part, ASTM D6886-18 (incorporated by reference, see §63.14), or other method approved by the Administrator. If you use ASTM D6886-18 to determine the HAP content, you must use either Method B or Method B in conjunction with Method C, as described in section 4.3 of ASTM D6886-18. In addition, you may use other means, such as voluntary consensus standards, safety data sheets (SDS), or certified product data sheets, to determine the HAP content of the organic liquid. If the method you select to determine the HAP content provides HAP content ranges, you must use the upper end of each HAP content range in determining the total HAP content of the organic liquid. The EPA may require you to test the HAP content of an organic liquid using Method 311 of appendix A to this part or other method approved by the Administrator. For liquids that contain any amount of formaldehyde or carbon tetrachloride, you may not use Method 311 of appendix A to this part. If the results of the Method 311 of appendix A to this part (or any other approved method) are different from the HAP content determined by another means, the Method 311 of appendix A to this part (or approved method) results will govern. For liquids that contain any amount of formaldehyde or carbon tetrachloride, if the results of ASTM D6886-18 using method B or C in section 4.3 (or

any other approved method) are different from the HAP content determined by another means, ASTM D6886-18 using method B or C in section 4 (or approved method) results will govern.

(d) Each VOC CEMS must be installed, operated, and maintained according to the requirements of one of the following performance specifications located in 40 CFR part 60, appendix B: Performance Specification 8, Performance Specification 8A, Performance Specification 9, or Performance Specification 15. You must also comply with the requirements of procedure 1 of 40 CFR part 60, appendix F, for CEMS using Performance Specification 8 or 8A.

(1) For CEMS using Performance Specification 9 or 15, determine the target analyte(s) for calibration using either process knowledge or the screening procedures of Method 18 of 40 CFR part 60, appendix A-6.

(2) For CEMS using Performance Specification 8A, conduct the relative accuracy test audits required under Procedure 1 of 40 CFR part 60, appendix F in accordance with Performance Specification 8, Sections 8 and 11. The relative accuracy must meet the criteria of Performance Specification 8, Section 13.2.

(3) For CEMS using Performance Specification 8 or 8A, calibrate the instrument on methane and report the results as carbon (C1). Use Method 25A of 40 CFR part 60, appendix A-7 as the reference method for the relative accuracy tests.

(4) If you are required to monitor oxygen in order to conduct concentration corrections, you must use Performance Specification 3 of 40 CFR part 60, appendix B, to certify your oxygen CEMS, and you must comply with procedure 1 of 40 CFR part 60, appendix F. Use Method 3A of 40 CFR part 60, appendix A-2, as the reference method when conducting a relative accuracy test audit.

10. Section 63.2358 is amended by adding paragraph (b)(3) to read as follows:

§63.2358 By what date must I conduct performance tests and other initial compliance demonstrations?

* * * * *

(b) * * *

(3) For storage tanks and transfer racks at existing affected sources that commenced construction or reconstruction on or before **[INSERT DATE OF PUBLICATION IN THE FEDERAL REGISTER]**, you must demonstrate initial compliance with the emission limitations listed in Table 2b to this subpart within 180 days of either the initial startup or **[date 3 years after date of publication of final rule in the Federal Register]**, whichever is later, except as provided in paragraphs (b)(3)(i) and (b)(3)(ii) of this section.

(i) For storage tanks with an existing internal or external floating roof, complying with item 1.a.ii. in Table 2b to this subpart and item 1.a. in Table 4 to this subpart, you must conduct your initial compliance demonstration the next time the storage tank is emptied and degassed, but not later than **[date 10 years after date of publication of final rule in the Federal Register]**.

(ii) For storage tanks complying with item 1.a.ii. in Table 2b of this subpart and item 1.b. or 1.c. in Table 4 of this subpart, you must comply within 180 days after **[date 3 years after date of publication of final rule in the Federal Register]**.

* * * * *

11. Section 63.2362 is amended by revising paragraph (b)(2) to read as follows:

§63.2362 When must I conduct subsequent performance tests?

* * * * *

(b)(1) * * *

(2) For transport vehicles that you own that do not have vapor collection equipment, you must maintain current certification in accordance with the U.S. DOT qualification and maintenance requirements in 49 CFR part 180, subpart E for cargo tanks and subpart F for tank cars.

12. Section 63.2366 is revised to read as follows:

§63.2366 What are my monitoring installation, operation, and maintenance requirements?

(a) You must install, operate, and maintain a continuous monitoring system (CMS) on each control device required in order to comply with this subpart. If you use a continuous parameter monitoring system (CPMS) (as defined in §63.981), you must comply with §63.2346(m) and the applicable requirements for CPMS in 40 CFR part 63, subpart SS, for the control device being used. If you use a CEMS, you must install, operate, and maintain the CEMS according to the requirements in §63.8 and paragraph (d) of this section, except as specified in paragraph (c) of this section.

(b) For nonflare control devices controlling storage tanks and low throughput transfer racks, you must submit a monitoring plan according to the requirements in 40 CFR part 63, subpart SS, for monitoring plans. You must also comply with the requirements specified in §63.2346(m).

(c) Beginning no later than the compliance dates specified in §63.2342(e), you must keep the written procedures required by §63.8(d)(2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised,

you must keep previous (*i.e.*, superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan. The program of corrective action should be included in the plan required under §63.8(d)(2). In addition to the information required in §63.8(d)(2), your written procedures for CEMS must include the information in paragraphs (c)(1) through (6) of this section:

- (1) Description of CEMS installation location.
 - (2) Description of the monitoring equipment, including the manufacturer and model number for all monitoring equipment components and the span of the analyzer.
 - (3) Routine quality control and assurance procedures.
 - (4) Conditions that would trigger a CEMS performance evaluation, which must include, at a minimum, a newly installed CEMS; a process change that is expected to affect the performance of the CEMS; and the Administrator's request for a performance evaluation under section 114 of the Clean Air Act.
 - (5) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8);
 - (6) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c) and (e)(1).
- (d) For each CEMS, you must locate the sampling probe or other interface at a measurement location such that you obtain representative measurements of emissions from the regulated source and comply with the applicable requirements specified in §63.2354(d).

13. Section 63.2370 is amended by revising paragraphs (a) and (c) to read as follows:

§63.2370 How do I demonstrate initial compliance with the emission limitations, operating

limits, and work practice standards?

(a) You must demonstrate initial compliance with each emission limitation and work practice standard that applies to you as specified in Tables 6 and 7 to this subpart.

* * * * *

(c) You must submit the results of the initial compliance determination in the Notification of Compliance Status according to the requirements in §63.2382(d). If the initial compliance determination includes a performance test and the results are submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI) in accordance with §63.2386(g), the unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in the Notification of Compliance Status in lieu of the performance test results. The performance test results must be submitted to CEDRI by the date the Notification of Compliance Status is submitted.

14. Section 63.2374 is amended by revising paragraph (a) to read as follows:

§63.2374 When do I monitor and collect data to demonstrate continuous compliance and how do I use the collected data?

(a) You must monitor and collect data according to 40 CFR part 63, subpart SS, and paragraphs (b) and (c) of this section. You must also comply with the requirements specified in §63.2346(m).

* * * * *

15. Section 63.2378 is revised to read as follows:

§63.2378 How do I demonstrate continuous compliance with the emission limitations, operating limits, and work practice standards?

(a) You must demonstrate continuous compliance with each emission limitation, operating limit, and work practice standard in Tables 2 through 4 to this subpart that applies to you according to the methods specified in 40 CFR part 63, subpart SS, and in Tables 8 through 10 to this subpart, as applicable. You must also comply with the requirements specified in §63.2346(m).

(b) Except as specified in paragraph (e) of this section, you must follow the requirements in §63.6(e)(1) and (3) during periods of startup, shutdown, malfunction, or nonoperation of the affected source or any part thereof. In addition, the provisions of paragraphs (b)(1) through (3) of this section apply.

(1) The emission limitations in this subpart apply at all times except during periods of nonoperation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. The emission limitations of this subpart apply during periods of SSM, except as provided in paragraphs (b)(2) and (3) of this section. However, if a SSM, or period of nonoperation of one portion of the affected source does not affect the ability of a particular emission source to comply with the emission limitations to which it is subject, then that emission source is still required to comply with the applicable emission limitations of this subpart during the startup, shutdown, malfunction, or period of nonoperation.

(2) The owner or operator must not shut down control devices or monitoring systems that are required or utilized for achieving compliance with this subpart during periods of SSM while emissions are being routed to such items of equipment if the shutdown would contravene requirements of this subpart applicable to such items of equipment. This paragraph (b)(2) does

not apply if the item of equipment is malfunctioning. This paragraph (b)(2) also does not apply if the owner or operator shuts down the compliance equipment (other than monitoring systems) to avoid damage due to a contemporaneous SSM of the affected source or portion thereof. If the owner or operator has reason to believe that monitoring equipment would be damaged due to a contemporaneous SSM of the affected source or portion thereof, the owner or operator must provide documentation supporting such a claim in the next Compliance report required in Table 11 to this subpart, item 1. Once approved by the Administrator, the provision for ceasing to collect, during a SSM, monitoring data that would otherwise be required by the provisions of this subpart must be incorporated into the SSM plan.

(3) During SSM, you must implement, to the extent reasonably available, measures to prevent or minimize excess emissions. For purposes of this paragraph (b)(3), the term “excess emissions” means emissions greater than those allowed by the emission limits that apply during normal operational periods. The measures to be taken must be identified in the SSM plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the affected source. Back-up control devices are not required, but may be used if available.

(c) Except as specified in paragraph (e) of this section, periods of planned routine maintenance of a control device used to control storage tanks or transfer racks, during which the control device does not meet the emission limits in Table 2 to this subpart, must not exceed 240 hours per year.

(d) Except as specified in paragraph (e) of this section, if you elect to route emissions from storage tanks or transfer racks to a fuel gas system or to a process, as allowed by §63.982(d), to comply with the emission limits in Table 2 to this subpart, the total aggregate

amount of time during which the emissions bypass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except SSM or product changeovers of flexible operation units and periods when a storage tank has been emptied and degassed), must not exceed 240 hours.

(e) Beginning no later than the compliance dates specified in §63.2342(e), paragraphs (b) through (d) of this section no longer apply. Instead, you must be in compliance with each emission limitation, operating limit, and work practice standard specified in paragraph (a) of this section at all times, except during periods of nonoperation of the affected source (or specific portion thereof) resulting in cessation of the emissions to which this subpart applies. The use of a bypass line at any time on a closed vent system to divert a vent stream to the atmosphere or to a control device not meeting the requirements specified in paragraph (a) of this section is an emissions standards deviation. Equipment subject to the work practice standards for equipment leak components in Table 4 to this subpart, item 4 are not subject to this paragraph (e). If you are subject to the bypass monitoring requirements of §63.983(a)(3) of subpart SS, then you must continue to comply with the requirements in §63.983(a)(3) of subpart SS and the recordkeeping and reporting requirements in §63.998(d)(1)(ii) and §63.999(c)(2) of subpart SS, in addition to §63.2346(m), the recordkeeping requirements specified in §63.2390(g), and the reporting requirements specified in §63.2386(c)(12).

(f) The CEMS data must be reduced to daily averages computed using valid data consistent with the data availability requirements specified in §63.999(c)(6)(i)(B) through (D), except monitoring data also are sufficient to constitute a valid hour of data if measured values are available for at least two of the 15-minute periods during an hour when calibration, quality assurance, or maintenance activities are being performed. In computing daily averages to

determine compliance with this subpart, you must exclude monitoring data recorded during CEMS breakdowns, out of control periods, repairs, maintenance periods, calibration checks, or other quality assurance activities.

16. Section 63.2380 is added to read as follows:

§63.2380 What are my requirements for certain flares?

(a) Beginning no later than the compliance dates specified in §63.2342(e), if you reduce organic HAP emissions by venting emissions through a closed vent system to a steam-assisted, air-assisted, or non-assisted flare to control emissions from a storage tank, low throughput transfer rack, or high throughput transfer rack, then the flare requirements specified in §63.11(b); 40 CFR part 63, subpart SS; the provisions specified in items 7.a through 7.d of Table 3; Table 8 to this subpart; and the provisions specified in items 1.a.iii and 2.a.iii, and items 7.a through 7.d.2 of Table 9 to this subpart no longer apply. Instead, you must meet the applicable requirements for flares as specified in §§63.670 and 63.671 of subpart CC, including the provisions in Tables 12 and 13 to subpart CC of this part, except as specified in paragraphs (b) through (k) of this section. For purposes of compliance with this paragraph, the following terms are defined in §63.641 of subpart CC: Assist air, assist steam, center steam, combustion zone, combustion zone gas, flare, flare purge gas, flare supplemental gas, flare sweep gas, flare vent gas, lower steam, net heating value, perimeter assist air, pilot gas, premix assist air, total steam, and upper steam.

(b) The following phrases in §63.670(c) of subpart CC do not apply:

(1) “[S]pecify the smokeless design capacity of each flare and”; and

(2) “[A]nd the flare vent gas flow rate is less than the smokeless design capacity of the flare”.

(c) The phrase “and the flare vent gas flow rate is less than the smokeless design capacity of the flare” in §63.670(d) of subpart CC does not apply.

(d) §63.670(o) does not apply.

(e) Substitute “affected source” for each occurrence of “petroleum refinery.”

(f) Each occurrence of “refinery” does not apply.

(g) You may elect to comply with the alternative means of emissions limitation requirements specified in §63.670(r) of subpart CC in lieu of the requirements in §63.670(d) through (f) of subpart CC, as applicable. However, instead of complying with §63.670(r)(3)(iii) of subpart CC, you must also submit the alternative means of emissions limitation request to the following address: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (E143-01), Attention: Organic Liquids Distribution Sector Lead, 109 T.W. Alexander Drive, Research Triangle Park, NC 27711. Electronic copies in lieu of hard copies may also be submitted to *oldrtr@epa.gov*.

(h) If you choose to determine compositional analysis for net heating value with a continuous process mass spectrometer, then you must comply with the requirements specified in paragraphs (h)(1) through (7) of this section.

(1) You must meet the requirements in §63.671(e)(2) of subpart CC. You may augment the minimum list of calibration gas components found in §63.671(e)(2) of subpart CC with compounds found during a pre-survey or known to be in the gas through process knowledge.

(2) Calibration gas cylinders must be certified to an accuracy of 2 percent and traceable to National Institute of Standards and Technology (NIST) standards.

(3) For unknown gas components that have similar analytical mass fragments to calibration compounds, you may report the unknowns as an increase in the overlapped

calibration gas compound. For unknown compounds that produce mass fragments that do not overlap calibration compounds, you may use the response factor for the nearest molecular weight hydrocarbon in the calibration mix to quantify the unknown component's NHV_{vg}.

(4) You may use the response factor for n-pentane to quantify any unknown components detected with a higher molecular weight than n-pentane.

(5) You must perform an initial calibration to identify mass fragment overlap and response factors for the target compounds.

(6) You must meet applicable requirements in Performance Specification 9 of appendix B to 40 CFR part 60 for continuous monitoring system acceptance including, but not limited to, performing an initial multi-point calibration check at three concentrations following the procedure in Section 10.1 and performing the periodic calibration requirements listed for gas chromatographs in Table 13 of 40 CFR part 63, subpart CC, for the process mass spectrometer. You may use the alternative sampling line temperature allowed under Net Heating Value by Gas Chromatograph in Table 13 of 40 CFR part 63, subpart CC.

(7) The average instrument calibration error (CE) for each calibration compound at any calibration concentration must not differ by more than 10 percent from the certified cylinder gas value. The CE for each component in the calibration blend must be calculated using the following equation:

$$CE = \frac{C_m - C_a}{C_a} \times 100$$

Where :

C_m = Average instrument response (ppm)

C_a = Certified cylinder gas value (ppm)

(i) If you use a gas chromatograph or mass spectrometer for compositional analysis for net heating value, then you may choose to use the CE of NHV measured versus the cylinder tag value NHV as the measure of agreement for daily calibration and quarterly audits in lieu of

determining the compound-specific CE. The CE for NHV at any calibration level must not differ by more than 10 percent from the certified cylinder gas value. The CE for must be calculated using the following equation:

$$CE = \frac{NHV_{measured} - NHV_a}{NHV_a} \times 100$$

Where:

NHV_{measured} = Average instrument response (Btu/scf)

NHV_a = Certified cylinder gas value (Btu/scf)

(j) Instead of complying with §63.670(p) of subpart CC, you must keep the flare monitoring records specified in §63.2390(h).

(k) Instead of complying with §63.670(q) of subpart CC, you must comply with the reporting requirements specified in §63.2382(d)(2)(ix) and §63.2386(d)(5).

17. Section 63.2382 is amended by revising paragraphs (a), (d)(1), (d)(2) introductory text, (d)(2)(ii), (d)(2)(vi), (d)(2)(vii), and adding (d)(2)(ix) and (d)(3) to read as follows:

§63.2382 What notifications must I submit and when and what information should be submitted?

(a) You must submit each notification in subpart SS of this part, Table 12 to this subpart, and paragraphs (b) through (d) of this section that applies to you. You must submit these notifications according to the schedule in Table 12 to this subpart and as specified in paragraphs (b) through (d) of this section. You must also comply with the requirements specified in §63.2346(m).

* * * * *

(d)(1) *Notification of Compliance Status.* If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Table 5, 6, or 7 to this subpart, you must submit a Notification of Compliance Status.

(2) The Notification of Compliance Status must include the information required in §63.999(b) and in paragraphs (d)(2)(i) through (ix) of this section.

* * * * *

(ii) The results of emissions profiles, performance tests, engineering analyses, design evaluations, flare compliance assessments, inspections and repairs, and calculations used to demonstrate initial compliance according to Tables 6 and 7 to this subpart. For performance tests, results must include descriptions of sampling and analysis procedures and quality assurance procedures. If performance test results are submitted electronically via CEDRI in accordance with §63.2386(g), the unit(s) tested, the pollutant(s) tested, and the date that such performance test was conducted may be submitted in the Notification of Compliance Status in lieu of the performance test results. The performance test results must be submitted to CEDRI by the date the Notification of Compliance Status is submitted.

* * * * *

(vi) The applicable information specified in §63.1039(a)(1) through (3) for all pumps and valves subject to the work practice standards for equipment leak components in Table 4 to this subpart, item 4, and all connectors subject to the work practice standards for equipment leak components in Table 4 to this subpart, item 7.

(vii) If you are complying with the vapor balancing work practice standard for transfer racks according to Table 4 to this subpart, item 3.a, include a statement to that effect and a statement that the pressure vent settings on the affected storage tanks are greater than or equal to 2.5 psig.

* * * * *

(ix) For flares subject to the requirements of §63.2380, you must also submit the information in this paragraph in a supplement to the Notification of Compliance Status within 150 days after the first applicable compliance date for flare monitoring. In lieu of the information required in §63.987(b) of subpart SS, the Notification of Compliance Status must include flare design (*e.g.*, steam-assisted, air-assisted, or non-assisted); all visible emission readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the initial visible emissions demonstration required by §63.670(h) of subpart CC, as applicable; and all periods during the compliance determination when the pilot flame is absent.

(3) Beginning no later than the compliance dates specified in §63.2342(e), you must submit all subsequent Notification of Compliance Status reports to the EPA via CEDRI, which can be accessed through EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). If you claim some of the information required to be submitted via CEDRI is confidential business information (CBI), then submit a complete report, including information claimed to be CBI, to the EPA. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA Mailroom (C404-02), Attention: Organic Liquids Distribution Sector Lead, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via EPA's CDX as described earlier in this paragraph. You may assert a claim of EPA system outage or force majeure for failure to timely comply with this reporting requirement provided you meet the requirements outlined in §63.2386(i) or (j), as applicable.

18. Section 63.2386 is amended by:

- a. Revising paragraphs (a), paragraph (b) introductory text, paragraph (c) introductory text, paragraphs (c)(2), (c)(3), (c)(5), paragraph (c)(8) introductory text and paragraph (c)(9);
- b. Adding paragraphs (c)(11) and (c)(12);
- c. Revising paragraph (d) introductory text, paragraph (d)(1) introductory text, paragraphs (d)(1)(i) through (d)(1)(vii), (d)(1)(ix), and (d)(1)(x);
- d. Adding paragraphs (d)(1)(xiii) through (d)(1)(xv);
- e. Revising paragraphs (d)(2)(i), (d)(2)(iv), (d)(3)(i) and (d)(3)(ii);
- f. Adding paragraphs (d)(3)(iii) and (d)(5);
- g. Revising paragraph (e); and
- h. Adding paragraphs (f) through (k).

The revisions and additions read as follows:

§63.2386 What reports must I submit and when and what information is to be submitted in each?

(a) You must submit each report in subpart SS of this part, Table 11 to this subpart, Table 12 to this subpart, and in paragraphs (c) through (k) of this section that applies to you. You must also comply with the requirements specified in §63.2346(m).

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report according to Table 11 to this subpart and by the dates shown in paragraphs (b)(1) through (3) of this section, by the dates shown in subpart SS of this part, and by the dates shown in Table 12 to this subpart, whichever are applicable.

* * * * *

(c) *First Compliance report.* The first Compliance report must contain the information specified in paragraphs (c)(1) through (12) of this section, as well as the information specified in paragraph (d) of this section.

* * * * *

(2) Statement by a responsible official, including the official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete. If your report is submitted via CEDRI, the certifier's electronic signature during the submission process replaces this requirement.

(3) Date of report and beginning and ending dates of the reporting period. You are no longer required to provide the date of report when the report is submitted via CEDRI.

* * * * *

(5) Except as specified in paragraph (c)(11) of this section, if you had a SSM during the reporting period and you took actions consistent with your SSM plan, the Compliance report must include the information described in §63.10(d)(5)(i).

* * * * *

(8) Except as specified in paragraph (c)(12) of this section, for closed vent systems and control devices used to control emissions, the information specified in paragraphs (c)(8)(i) and (ii) of this section for those planned routine maintenance activities that would require the control device to not meet the applicable emission limit.

* * * * *

(9) A listing of all transport vehicles into which organic liquids were loaded at transfer racks that are subject to control based on the criteria specified in Table 2 to this subpart, items 7

through 10, during the previous 6 months for which vapor tightness documentation as required in §63.2390(c) was not on file at the facility.

* * * * *

(11) Beginning no later than the compliance dates specified in §63.2342(e), paragraph (c)(5) of this section no longer applies.

(12) Beginning no later than the compliance dates specified in §63.2342(e), paragraph (c)(8) of this section no longer applies. Instead, for bypass lines subject to the requirements §63.2378(e), the compliance report must include the start date, start time, duration in hours, estimate of the volume of gas in standard cubic feet (scf), the concentration of organic HAP in the gas in ppmv and the resulting mass emissions of organic HAP in pounds that bypass a control device. For periods when the flow indicator is not operating, report the start date, start time, and duration in hours.

(d) *Subsequent Compliance reports.* Subsequent Compliance reports must contain the information in paragraphs (c)(1) through (9) and paragraph (c)(12) of this section and, where applicable, the information in paragraphs (d)(1) through (5) of this section.

(1) For each deviation from an emission limitation occurring at an affected source where you are using a CMS to comply with an emission limitation in this subpart, or for each CMS that was inoperative or out of control during the reporting period, you must include in the Compliance report the applicable information in paragraphs (d)(1)(i) through (xv) of this section. This includes periods of SSM.

(i) The date and time that each malfunction started and stopped, and the nature and cause of the malfunction (if known).

(ii) The start date, start time, and duration in hours for each period that each CMS was inoperative, except for zero (low-level) and high-level checks.

(iii) The start date, start time, and duration in hours for each period that the CMS that was out of control.

(iv) Except as specified in paragraph (d)(1)(xiii) of this section, the date and time that each deviation started and stopped, and whether each deviation occurred during a period of SSM, or during another period.

(v) The total duration in hours of all deviations for each CMS during the reporting period, and the total duration as a percentage of the total emission source operating time during that reporting period.

(vi) Except as specified in paragraph (d)(1)(xiii) of this section, a breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(vii) The total duration in hours of CMS downtime for each CMS during the reporting period, and the total duration of CMS downtime as a percentage of the total emission source operating time during that reporting period.

* * * * *

(ix) A brief description of the emission source(s) at which the CMS deviation(s) occurred or at which the CMS was inoperative or out of control.

(x) The equipment manufacturer(s) and model number(s) of the CMS and the pollutant or parameter monitored.

* * * * *

(xiii) Beginning no later than the compliance dates specified in §63.2342(e), paragraphs (d)(1)(iv) and (vi) of this section no longer apply. For each instance, report the start date, start time, and duration in hours of each failure. For each failure, the report must include a list of the affected sources or equipment, an estimate of the quantity in pounds of each regulated pollutant emitted over any emission limit, a description of the method used to estimate the emissions, and the cause of the deviation (including unknown cause, if applicable), as applicable, and the corrective action taken.

(xiv) Corrective actions taken for a CMS that was inoperative or out of control.

(xv) Total process operating time during the reporting period.

(2) * * *

(i) Except as specified in paragraph (d)(2)(iv) of this section, for each storage tank and transfer rack subject to control requirements, include periods of planned routine maintenance during which the control device did not comply with the applicable emission limits in Table 2 to this subpart.

* * * * *

(iv) Beginning no later than the compliance dates specified in §63.2342(e), paragraph (d)(2)(i) of this section no longer applies.

(3) (i) Except as specified in paragraph (d)(3)(iii) of this section, a listing of any storage tank that became subject to controls based on the criteria for control specified in Table 2 to this subpart, items 1 through 6, since the filing of the last Compliance report.

(ii) A listing of any transfer rack that became subject to controls based on the criteria for control specified in Table 2 to this subpart, items 7 through 10, since the filing of the last Compliance report.

(iii) Beginning no later than the compliance dates specified in §63.2342(e), the emission limits specified in Table 2 to this subpart for storage tanks at an existing affected source no longer apply as specified in §63.2346(a)(5). Instead, beginning no later than the compliance dates specified in §63.2342(e), you must include a listing of any storage tanks at an existing affected source that became subject to controls based on the criteria for control specified in Table 2b to this subpart, items 1 through 3, since the filing of the last Compliance report. If you choose to meet the fenceline monitoring requirements specified in §63.2348, then you are not required to comply with this paragraph.

* * * * *

(5) Beginning no later than the compliance dates specified in §63.2342(e), for each flare subject to the requirements in §63.2380, the compliance report must include the items specified in paragraphs (d)(5)(i) through (iii) of this section in lieu of the information required in §63.999(c)(3) of subpart SS.

(i) Records as specified in §63.2390(h)(1) for each 15-minute block during which there was at least one minute when regulated material is routed to a flare and no pilot flame is present. Include the start and stop time and date of each 15-minute block.

(ii) Visible emission records as specified in §63.2390(h)(2)(iv) for each period of 2 consecutive hours during which visible emissions exceeded a total of 5 minutes.

(iii) The periods specified in §63.2390(h)(6). Indicate the date and start and end time for the period, and the net heating value operating parameter(s) determined following the methods in §63.670(k) through (n) of subpart CC as applicable.

(e) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual

monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 11 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission limitation in this subpart, we will consider submission of the Compliance report as satisfying any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report will not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the applicable title V permitting authority.

(f) Beginning no later than the compliance dates specified in §63.2342(e), you must submit all Compliance reports to the EPA via CEDRI, which can be accessed through EPA's CDX (<https://cdx.epa.gov/>). You must use the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>) for this subpart. The date report templates become available will be listed on the CEDRI website. The report must be submitted by the deadline specified in this subpart, regardless of the method in which the report is submitted. If you claim some of the information required to be submitted via CEDRI is CBI, submit a complete report, including information claimed to be CBI, to the EPA. The report must be generated using the appropriate form on the CEDRI website or an alternate electronic file consistent with the extensible markup language (XML) schema listed on the CEDRI website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Sector Policies and Programs Division, U.S. EPA

Mailroom (C404-02), Attention: Organic Liquids Distribution Sector Lead, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via EPA's CDX as described earlier in this paragraph. You may assert a claim of EPA system outage or force majeure for failure to timely comply with this reporting requirement provided you meet the requirements outlined in paragraph (i) or (j) of this section, as applicable.

(g) Beginning no later than the compliance dates specified in §63.2342(e), you must start submitting performance test reports in accordance with this paragraph. Within 60 days after the date of completing each performance test required by this subpart, you must submit the results of the performance test following the procedures specified in paragraphs (g)(1) through (3) of this section.

(1) *Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (<https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert>) at the time of the test.* Submit the results of the performance test to the EPA via CEDRI, which can be accessed through the EPA's CDX (<https://cdx.epa.gov/>). The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the XML schema listed on the EPA's ERT website.

(2) *Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test.* The results of the performance test must be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(3) *CBI*. If you claim some of the information submitted under paragraph (g)(1) or (2) of this section is CBI, then you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via EPA's CDX as described in paragraphs (g)(1) and (2) of this section.

(h) Beginning no later than the compliance dates specified in §63.2342(e), you must start submitting performance evaluation reports in accordance with this paragraph. Within 60 days after the date of completing each CMS performance evaluation (as defined in §63.2), you must submit the results of the performance evaluation following the procedures specified in paragraphs (h)(1) through (3) of this section.

(1) *Performance evaluations of CMS measuring relative accuracy test audit (RATA) pollutants that are supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation.* Submit the results of the performance evaluation to the EPA via CEDRI, which can be accessed through the EPA's CDX. The data must be submitted in a file format generated through the use of the EPA's ERT. Alternatively, you may submit an electronic file consistent with the XML schema listed on the EPA's ERT website.

(2) *Performance evaluations of CMS measuring RATA pollutants that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the evaluation.* The results of the performance evaluation must be included as an attachment in the ERT or an alternate

electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(3) *CBI*. If you claim some of the information submitted under paragraph (h)(1) or (2) of this section is CBI, then you must submit a complete file, including information claimed to be CBI, to the EPA. The file must be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in paragraphs (h)(1) and (2) of this section.

(i) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of EPA system outage for failure to timely comply with the reporting requirement. To assert a claim of EPA system outage, you must meet the requirements outlined in paragraphs (i)(1) through (7) of this section.

(1) You must have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(2) The outage must have occurred within the period of time beginning five business days prior to the date that the submission is due.

(3) The outage may be planned or unplanned.

(4) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(5) You must provide to the Administrator a written description identifying:

(i) The date(s) and time(s) when CDX or CEDRI was accessed and the system was unavailable;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;

(iii) Measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(6) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(7) In any circumstance, the report must be submitted electronically as soon as possible after the outage is resolved.

(j) If you are required to electronically submit a report through CEDRI in the EPA's CDX, you may assert a claim of force majeure for failure to timely comply with the reporting requirement. To assert a claim of force majeure, you must meet the requirements outlined in paragraphs (j)(1) through (5) of this section.

(1) You may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning five business days prior to the date the submission is due. For the purposes of this paragraph, a force majeure event is defined as an event that will be or has been caused by circumstances

beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.*, hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.*, large scale power outage).

(2) You must submit notification to the Administrator in writing as soon as possible following the date you first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(3) You must provide to the Administrator:

(i) A written description of the force majeure event;

(ii) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;

(iii) Measures taken or to be taken to minimize the delay in reporting; and

(iv) The date by which you propose to report, or if you have already met the reporting requirement at the time of the notification, the date you reported.

(4) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the Administrator.

(5) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

(k) For each OLD operation complying with the requirements in §63.2348, you must submit the following information:

(1) A notification to the Administrator that you are exercising the option to implement fenceline monitoring according to the requirements in §63.2348.

(2) A report to the Administrator containing the information required at §63.2348(b), including the model input file, the model results, the selected analytes, and the action level for each analyte. The report must be submitted no later than the date specified in §63.2342(f)(1).

(3) Monitoring data must be submitted quarterly to EPA's CEDRI (CEDRI can be accessed through the EPA's CDX (<https://cdx.epa.gov/>.) using the appropriate electronic report template on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri>) for this subpart according to paragraphs (k)(3)(i) and (ii) of this section:

(i) The first quarterly report must be submitted once you have obtained 12 months of data. The first quarterly report must cover the period beginning on the compliance date that is specified in §63.2342(f)(2) and ending on March 31, June 30, September 30 or December 31, whichever date is the first date that occurs after you have obtained 12 months of data (*i.e.*, the first quarterly report will contain between 12 and 15 months of data). Each subsequent quarterly report must cover one of the following reporting periods: Quarter 1 from January 1 through March 31; Quarter 2 from April 1 through June 30; Quarter 3 from July 1 through September 30; and Quarter 4 from October 1 through December 31. Each quarterly report must be electronically submitted no later than 45 calendar days following the end of the reporting period.

(ii) Report contents. Each report must contain the following information:

(A) Facility name and address.

(B) Year and reporting quarter (*i.e.*, Quarter 1, Quarter 2, Quarter 3, or Quarter 4).

(C) For the first reporting period and for any reporting period in which a passive monitor is added or moved, for each passive monitor: The latitude and longitude location coordinates; the sampler name; and identification of the type of sampler (*i.e.*, regular monitor, extra monitor,

duplicate, field blank, inactive). You must determine the coordinates using an instrument with an accuracy of at least 3 meters. Coordinates must be in decimal degrees with at least five decimal places.

(D) The beginning and ending dates for each sampling period.

(E) Individual sample results for each analyte reported in units of $\mu\text{g}/\text{m}^3$ for each monitor for each sampling period that ends during the reporting period. Results must be reported with at least two significant figures. Results below the method detection limit must be flagged as below the detection limit and reported at the method detection limit.

(F) Data flags that indicate each monitor that was skipped for the sampling period, if you use an alternative sampling frequency under §63.2348(e)(3).

(G) Data flags for each outlier determined in accordance with Section 9.2 of Method 325A of appendix A of this part. For each outlier, you must submit the individual sample result of the outlier, as well as the evidence used to conclude that the result is an outlier.

(H) The biweekly concentration difference (Δc) for each analyte for each sampling period and the annual average Δc for each analyte for each sampling period.

19. Section 63.2390 is amended by:

- a. Revising paragraphs (b)(1) and (b)(2);
- b. Adding paragraph (b)(3);
- c. Revising paragraphs (c) introductory text, (c)(2), (c)(3) and (d); and
- d. Adding paragraphs (f) through (i).

The revisions and additions read as follows:

§63.2390 What records must I keep?

* * * * *

(b) * * *

(1) Except as specified in paragraph (h) of this section for flares, you must keep all records identified in subpart SS of this part and in Table 12 to this subpart that are applicable, including records related to notifications and reports, SSM, performance tests, CMS, and performance evaluation plans. You must also comply with the requirements specified in §63.2346(m).

(2) Except as specified in paragraph (h) of this section for flares, you must keep the records required to show continuous compliance, as required in subpart SS of this part and in Tables 8 through 10 to this subpart, with each emission limitation, operating limit, and work practice standard that applies to you. You must also comply with the requirements specified in §63.2346(m).

(3) In addition to the information required in §63.998(c), the manufacturer's specifications or your written procedures must include a schedule for calibrations, preventative maintenance procedures, a schedule for preventative maintenance, and corrective actions to be taken if a calibration fails.

(c) For each transport vehicle into which organic liquids are loaded at a transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, you must keep the applicable records in paragraphs (c)(1) and (2) of this section or alternatively the verification records in paragraph (c)(3) of this section.

* * * * *

(2) For transport vehicles without vapor collection equipment, current certification in accordance with the U.S. DOT qualification and maintenance requirements in 49 CFR part 180, subpart E for cargo tanks and subpart F for tank cars.

(3) In lieu of keeping the records specified in paragraph (c)(1) or (2) of this section, as applicable, the owner or operator shall record that the verification of U.S. DOT tank certification or Method 27 of appendix A to 40 CFR part 60 testing, required in Table 5 to this subpart, item 2, has been performed. Various methods for the record of verification can be used, such as: A check-off on a log sheet, a list of U.S. DOT serial numbers or Method 27 data, or a position description for gate security showing that the security guard will not allow any trucks on site that do not have the appropriate documentation.

(d) You must keep records of the total actual annual facility-level organic liquid loading volume as defined in §63.2406 through transfer racks to document the applicability, or lack thereof, of the emission limitations in Table 2 to this subpart, items 7 through 10.

* * * * *

(f) Beginning no later than the compliance dates specified in §63.2342(e), for each deviation from an emission limitation, operating limit, and work practice standard specified in paragraph (a) of this section, you must keep a record of the information specified in paragraph (f)(1) through (3) of this section.

(1) In the event that an affected unit fails to meet an applicable standard, record the number of failures. For each failure record the date, time and duration of each failure.

(2) For each failure to meet an applicable standard, record and retain a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate the emissions.

(3) Record actions taken to minimize emissions in accordance with §63.2350(d) and any corrective actions taken to return the affected unit to its normal or usual manner of operation.

(g) Beginning no later than the compliance dates specified in §63.2342(e), for each flow event from a bypass line subject to the requirements in §63.2378(e), you must maintain records sufficient to determine whether or not the detected flow included flow requiring control. For each flow event from a bypass line requiring control that is released either directly to the atmosphere or to a control device not meeting the requirements specified in §63.2378(a), you must include an estimate of the volume of gas, the concentration of organic HAP in the gas and the resulting emissions of organic HAP that bypassed the control device using process knowledge and engineering estimates.

(h) Beginning no later than the compliance dates specified in §63.2342(e), for each flare subject to the requirements in §63.2380, you must keep records specified in paragraphs (h)(1) through (10) of this section in lieu of the information required in §63.998(a)(1) of subpart SS.

(1) Retain records of the output of the monitoring device used to detect the presence of a pilot flame as required in §63.670(b) of subpart CC for a minimum of 2 years. Retain records of each 15-minute block during which there was at least one minute that no pilot flame is present when regulated material is routed to a flare for a minimum of 5 years.

(2) Retain records of daily visible emissions observations or video surveillance images required in §63.670(h) of subpart CC as specified in paragraphs (h)(2)(i) through (iv) of this section, as applicable, for a minimum of 3 years.

(i) To determine when visible emissions observations are required, the record must identify all periods when regulated material is vented to the flare.

(ii) If visible emissions observations are performed using Method 22 at 40 CFR part 60, appendix A-7, then the record must identify whether the visible emissions observation was performed, the results of each observation, total duration of observed visible emissions, and

whether it was a 5-minute or 2-hour observation. Record the date and start and end time of each visible emissions observation.

(iii) If a video surveillance camera is used, then the record must include all video surveillance images recorded, with time and date stamps.

(iv) For each 2-hour period for which visible emissions are observed for more than 5 minutes in 2 consecutive hours, then the record must include the date and start and end time of the 2-hour period and an estimate of the cumulative number of minutes in the 2-hour period for which emissions were visible.

(3) The 15-minute block average cumulative flows for flare vent gas and, if applicable, total steam, perimeter assist air, and premix assist air specified to be monitored under §63.670(i) of subpart CC, along with the date and time interval for the 15-minute block. If multiple monitoring locations are used to determine cumulative vent gas flow, total steam, perimeter assist air, and premix assist air, then retain records of the 15-minute block average flows for each monitoring location for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years. If pressure and temperature monitoring is used, then retain records of the 15-minute block average temperature, pressure, and molecular weight of the flare vent gas or assist gas stream for each measurement location used to determine the 15-minute block average cumulative flows for a minimum of 2 years, and retain the 15-minute block average cumulative flows that are used in subsequent calculations for a minimum of 5 years.

(4) The flare vent gas compositions specified to be monitored under §63.670(j) of subpart CC. Retain records of individual component concentrations from each compositional analysis for

a minimum of 2 years. If an NHVvg analyzer is used, retain records of the 15-minute block average values for a minimum of 5 years.

(5) Each 15-minute block average operating parameter calculated following the methods specified in §63.670(k) through (n) of subpart CC, as applicable.

(6) All periods during which operating values are outside of the applicable operating limits specified in §63.670(d) through (f) of subpart CC when regulated material is being routed to the flare.

(7) All periods during which you do not perform flare monitoring according to the procedures in §63.670(g) through (j) of subpart CC.

(8) Records of periods when there is flow of vent gas to the flare, but when there is no flow of regulated material to the flare, including the start and stop time and dates of periods of no regulated material flow.

(9) The monitoring plan required in §63.2366(c).

(10) Records described in §63.10(b)(2)(vi) and (xi).

(i) Beginning no later than the compliance dates specified in 63.2342(f), for each OLD operation complying with the requirements in §63.2348, you must keep the records specified in paragraphs (i)(1) through (10) of this section on an ongoing basis.

(1) Coordinates of all passive monitors, including replicate samplers and field blanks, and if applicable, the meteorological station. You must determine the coordinates using an instrument with an accuracy of at least 3 meters. The coordinates must be in decimal degrees with at least five decimal places.

(2) The start and stop times and dates for each sample, as well as the tube identifying information.

(3) Sampling period average temperature and barometric pressure measurements.

(4) For each outlier determined in accordance with Section 9.2 of Method 325A of appendix A of this part, the sampler location of and the concentration of the outlier and the evidence used to conclude that the result is an outlier.

(5) For samples that will be adjusted for a background, the location of and the concentration measured simultaneously by the background sampler, and the perimeter samplers to which it applies.

(6) Individual sample results, the calculated Δc for each analyte for each sampling period and the two samples used to determine it, whether background correction was used, and the annual average Δc calculated after each sampling period.

(7) Method detection limit for each sample, including co-located samples and blanks.

(8) Documentation of corrective action taken each time the action level was exceeded.

(9) Other records as required by Methods 325A and 325B of appendix A of this part.

(10) If a near-field source correction is used as provided in §63.2348(i), records of hourly meteorological data, including temperature, barometric pressure, wind speed and wind direction, calculated daily unit vector wind direction and daily sigma theta, and other records specified in the site-specific monitoring plan.

20. Section 63.2396 is amended by:

a. Revising paragraph (a)(3);

b. Adding paragraph (a)(4); and

c. Revising paragraphs (c)(1), (c)(2), and (e)(2).

The revisions and addition read as follows:

§63.2396 What compliance options do I have if part of my plant is subject to both this

subpart and another subpart?

(a) * * *

(3) Except as specified in paragraph (a)(4) of this section, as an alternative to paragraphs (a)(1) and (2) of this section, if a storage tank assigned to the OLD affected source is subject to control under 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, you may elect to comply only with the requirements of this subpart for storage tanks meeting the applicability criteria for control in Table 2 to this subpart.

(4) Beginning no later than the compliance dates specified in §63.2342(e), the applicability criteria for control specified in Table 2 to this subpart for storage tanks at an existing affected source no longer apply as specified in §63.2346(a)(5). Instead, beginning no later than the compliance dates specified in §63.2342(e), as an alternative to paragraphs (a)(1) and (2) of this section, if a storage tank assigned to an existing OLD affected source is subject to control under 40 CFR part 60, subpart Kb, or 40 CFR part 61, subpart Y, you may elect to comply only with the requirements of this subpart for storage tanks at an existing affected source meeting the applicability criteria for control in Table 2b to this subpart. If you choose to meet the fenceline monitoring requirements specified in §63.2348, then you are not required to comply with this paragraph.

* * * * *

(c) * * *

(1) After the compliance dates specified in §63.2342, if you have connectors, pumps, valves, or sampling connections that are subject to a 40 CFR part 60 subpart, and those connectors, pumps, valves, and sampling connections are in OLD operation and in organic

liquids service, as defined in this subpart, you must comply with the provisions of each subpart for those equipment leak components.

(2) After the compliance dates specified in §63.2342, if you have connectors, pumps, valves, or sampling connections subject to 40 CFR part 63, subpart GGG, and those connectors, pumps, valves, and sampling connections are in OLD operation and in organic liquids service, as defined in this subpart, you may elect to comply with the provisions of this subpart for all such equipment leak components. You must identify in the Notification of Compliance Status required by §63.2382(b) the provisions with which you will comply.

* * * * *

(e) * * *

(2) *Equipment leak components.* After the compliance dates specified in §63.2342, if you are applying the applicable recordkeeping and reporting requirements of another 40 CFR part 63 subpart to the connectors, valves, pumps, and sampling connection systems associated with a transfer rack subject to this subpart that only unloads organic liquids directly to or via pipeline to a non-tank process unit component or to a storage tank subject to the other 40 CFR part 63 subpart, the owner or operator must be in compliance with the recordkeeping and reporting requirements of this subpart EEEE. If complying with the recordkeeping and reporting requirements of the other subpart satisfies the recordkeeping and reporting requirements of this subpart, the owner or operator may elect to continue to comply with the recordkeeping and reporting requirements of the other subpart. In such instances, the owner or operator will be deemed to be in compliance with the recordkeeping and reporting requirements of this subpart. The owner or operator must identify the other subpart being complied with in the Notification of Compliance Status required by §63.2382(b).

21. Section 63.2402 is amended by revising paragraph (b) introductory text and adding paragraphs (b)(5) and (b)(6) to read as follows:

§63.2402 Who implements and enforces this subpart?

* * * * *

(b) In delegating implementation and enforcement authority for this subpart to a State, local, or eligible tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraphs (b)(1) through (6) of this section are retained by the EPA Administrator and are not delegated to the State, local, or eligible tribal agency.

* * * * *

(5) Approval of an alternative to any electronic reporting to the EPA required by this subpart.

(6) Approval of a site-specific monitoring plan for fenceline monitoring at §63.2348(i).

22. Section 63.2406 is amended, in alphabetical order, by:

- a. Revising the definition of “Annual average true vapor pressure”;
- b. Adding the definition of “Condensate”;
- c. Revising the definitions of “Deviation” and “Equipment Leak component”;
- d. Adding the definition of “Force majeure event”;
- e. Revising the definition of “Organic liquid”;
- f. Adding the definitions of “Pressure relief device” and “Relief valve”; and
- g. Revising the definition of “Vapor-tight transport vehicle”.

The revisions and additions read as follows:

§63.2406 What definitions apply to this subpart?

* * * * *

Annual average true vapor pressure means the equilibrium partial pressure exerted by the total Table 1 organic HAP in the stored or transferred organic liquid. For the purpose of determining if a liquid meets the definition of an organic liquid, the vapor pressure is determined using conditions of 77 degrees Fahrenheit and 29.92 inches of mercury. For the purpose of determining whether an organic liquid meets the applicability criteria in Table 2, items 1 through 6, to this subpart or Table 2b, items 1 through 3, use the actual annual average temperature as defined in this subpart. The vapor pressure value in either of these cases is determined:

- (1) Using standard reference texts;
- (2) By ASTM D6378-18a (incorporated by reference, see §63.14) using a vapor to liquid ratio of 4:1; or
- (3) Using any other method that the EPA approves.

* * * * *

Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions as specified in §63.2. Only those condensates downstream of the first point of custody transfer after the production field are considered condensates in this subpart.

* * * * *

Deviation means any instance in which an affected source subject to this subpart, or portion thereof, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limitation (including any operating limit) or work practice standard;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart, and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Before **[date 180 days after date of publication of final rule in the Federal Register]**, fails to meet any emission limitation (including any operating limit) or work practice standard in this subpart during SSM. On and after **[date 180 days after date of publication of final rule in the Federal Register]**, this paragraph no longer applies.

* * * * *

Equipment leak component means each pump, valve, and sampling connection system used in organic liquids service at an OLD operation. Beginning no later than the compliance dates specified in §63.2342(e), connectors are also considered an equipment leak component. Valve types include control, globe, gate, plug, and ball. Relief and check valves are excluded.

Force majeure event means a release of HAP, either directly to the atmosphere from a safety device or discharged via a flare, that is demonstrated to the satisfaction of the Administrator to result from an event beyond the owner or operator's control, such as natural disasters; acts of war or terrorism; loss of a utility external to the OLD operation (*e.g.*, external power curtailment), excluding power curtailment due to an interruptible service agreement; and fire or explosion originating at a near or adjoining facility outside of the OLD operation that impacts the OLD operation's ability to operate.

* * * * *

Organic liquid means:

(1) Any non-crude oil liquid, non-condensate liquid, or liquid mixture that contains 5 percent by weight or greater of the organic HAP listed in Table 1 to this subpart, as determined using the procedures specified in §63.2354(c).

(2) Any crude oils or condensates downstream of the first point of custody transfer.

(3) Organic liquids for purposes of this subpart do not include the following liquids:

(i) Gasoline (including aviation gasoline), kerosene (No. 1 distillate oil), diesel (No. 2 distillate oil), asphalt, and heavier distillate oils and fuel oils;

(ii) Any fuel consumed or dispensed on the plant site directly to users (such as fuels for fleet refueling or for refueling marine vessels that support the operation of the plant);

(iii) Hazardous waste;

(iv) Wastewater;

(v) Ballast water; or

(vi) Any non-crude oil or non-condensate liquid with an annual average true vapor pressure less than 0.7 kilopascals (0.1 psia).

* * * * *

Pressure relief device means a valve, rupture disk, or similar device used only to release an unplanned, nonroutine discharge of gas from process equipment in order to avoid safety hazards or equipment damage. A pressure relief device discharge can result from an operator error, a malfunction such as a power failure or equipment failure, or other unexpected cause. Such devices include conventional, spring-actuated relief valves, balanced bellows relief valves, pilot-operated relief valves, rupture disks, and breaking, buckling, or shearing pin devices.

* * * * *

Relief valve means a type of pressure relief device that is designed to re-close after the pressure relief.

* * * * *

Vapor-tight transport vehicle means a transport vehicle that has been demonstrated to be vapor-tight. To be considered vapor-tight, a transport vehicle equipped with vapor collection equipment must undergo a pressure change of no more than 250 pascals (1 inch of water) within 5 minutes after it is pressurized to 4,500 pascals (18 inches of water). This capability must be demonstrated annually using the procedures specified in Method 27 of 40 CFR part 60, appendix A. For all other transport vehicles, vapor tightness is demonstrated by performing the U.S. DOT pressure test procedures for tank cars and cargo tanks.

* * * * *

23. Table 2 to subpart EEEE of Part 63 is revised to read as follows:

Table 2 to Subpart EEEE of Part 63—Emission Limits

If you own or operate . . .	And if . . .	Then you must . . . ⁽¹⁾
1. A storage tank at an existing affected source with a capacity \geq 18.9 cubic meters (5,000 gallons) and <189.3 cubic meters (50,000 gallons). ⁽²⁾	a. The stored organic liquid is not crude oil or condensate and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is \geq 27.6 kilopascals (4.0 psia) and <76.6 kilopascals (11.1 psia).	i. Reduce emissions of total organic HAP (or, upon approval, TOC) by at least 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS and §63.2346(m); OR
		ii. Comply with the work practice standards specified in Table 4 to this subpart, items 1.a, 1.b, or 1.c for tanks storing liquids described in that table.
	b. The stored organic liquid	i. See the requirement in item 1.a.i or

If you own or operate . . .	And if . . .	Then you must . . .⁽¹⁾
	is crude oil or condensate.	1.a.ii of this table.
2. A storage tank at an existing affected source with a capacity ≥ 189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil or condensate and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is < 76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil or condensate.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
3. A storage tank at a reconstructed or new affected source with a capacity ≥ 18.9 cubic meters (5,000 gallons) and < 37.9 cubic meters (10,000 gallons).	a. The stored organic liquid is not crude oil or condensate and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥ 27.6 kilopascals (4.0 psia) and < 76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil or condensate.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
4. A storage tank at a reconstructed or new affected source with a capacity ≥ 37.9 cubic meters (10,000 gallons) and < 189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil or condensate and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥ 0.7 kilopascals (0.1 psia) and < 76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil or condensate.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
5. A storage tank at a reconstructed or new affected source with a capacity ≥ 189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil or condensate and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is < 76.6 kilopascals (11.1 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.

If you own or operate . . .	And if . . .	Then you must . . . ⁽¹⁾
	b. The stored organic liquid is crude oil or condensate.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
6. A storage tank at an existing, reconstructed, or new affected source meeting the capacity criteria specified in Table 2 of this subpart, items 1 through 5.	a. The stored organic liquid is not crude oil or condensate and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥ 76.6 kilopascals (11.1 psia).	i. Reduce emissions of total organic HAP (or, upon approval, TOC) by at least 95 weight-percent or, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS and §63.2346(m); OR
		ii. Comply with the work practice standards specified in Table 4 to this subpart, item 2.a, for tanks storing the liquids described in that table.
7. A transfer rack at an existing facility where the total actual annual facility-level organic liquid loading volume through transfer racks is equal to or greater than 800,000 gallons and less than 10 million gallons.	a. The total Table 1 organic HAP content of the organic liquid being loaded through one or more of the transfer rack's arms is at least 98 percent by weight and is being loaded into a transport vehicle.	i. For all such loading arms at the rack, reduce emissions of total organic HAP (or, upon approval, TOC) from the loading of organic liquids either by venting the emissions that occur during loading through a closed vent system to any combination of control devices meeting the applicable requirements of 40 CFR part 63, subpart SS and §63.2346(m), achieving at least 98 weight-percent HAP reduction, OR, as an option, to an exhaust concentration less than or equal to 20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air; OR
		ii. During the loading of organic liquids, comply with the work practice standards specified in item 3 of Table 4 to this subpart.

If you own or operate . . .	And if . . .	Then you must . . .⁽¹⁾
8. A transfer rack at an existing facility where the total actual annual facility-level organic liquid loading volume through transfer racks is ≥ 10 million gallons.	a. One or more of the transfer rack's arms is loading an organic liquid into a transport vehicle.	i. See the requirements in items 7.a.i and 7.a.ii of this table.
9. A transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks is less than 800,000 gallons	a. The total Table 1 organic HAP content of the organic liquid being loaded through one or more of the transfer rack's arms is at least 25 percent by weight and is being loaded into a transport vehicle	i. See the requirements in items 7.a.i and 7.a.ii of this table.
	b. One or more of the transfer rack's arms is filling a container with a capacity equal to or greater than 55 gallons	i. For all such loading arms at the rack during the loading of organic liquids, comply with the provisions of §§63.924 through 63.927 of 40 CFR part 63, Subpart PP—National Emission Standards for Containers, Container Level 3 controls; OR ii. During the loading of organic liquids, comply with the work practice standards specified in item 3.a of Table 4 to this subpart.
10. A transfer rack at a new facility where the total actual annual facility-level organic liquid loading volume through transfer racks is equal to or greater than 800,000 gallons.	a. One or more of the transfer rack's arms is loading an organic liquid into a transport vehicle.	i. See the requirements in items 7.a.i and 7.a.ii of this table.
	b. One or more of the transfer rack's arms is filling a container with a capacity equal to or greater than 55 gallons.	i. For all such loading arms at the rack during the loading of organic liquids, comply with the provisions of §§63.924 through 63.927 of 40 CFR part 63, Subpart PP—National Emission Standards for Containers, Container Level 3 controls; OR

If you own or operate . . .	And if . . .	Then you must . . .⁽¹⁾
		ii. During the loading of organic liquids, comply with the work practice standards specified in item 3.a of Table 4 to this subpart.

⁽¹⁾ Beginning no later than the compliance dates specified in §63.2342(e), for each storage tank and low throughput transfer rack, if you vent emissions through a closed vent system to a flare then you must comply with the requirements specified in §63.2346(k).

⁽²⁾ Beginning no later than the compliance dates specified in §63.2342(e), the tank capacity criteria, liquid vapor pressure criteria, and emission limits specified for storage tanks at an existing affected source in Table 2 of this subpart, item 1 no longer apply. Instead, you must comply with the requirements as specified in §63.2346(a)(5) and Table 2b of this subpart. If you choose to meet the fenceline monitoring requirements specified in §63.2348, then you are not required to comply with Table 2b of this subpart as specified in §63.2346(a)(6). Instead, you may continue to comply with the tank capacity and liquid vapor pressure criteria and the emission limits specified for storage tanks at an existing affected source in Table 2 of this subpart, item 1.

24. Subpart EEEE of Part 63 is amended by adding Table 2b to read as follows:

Table 2b to Subpart EEEE of Part 63—Emission Limits For Storage Tanks At Certain Existing Affected Sources

As stated in §63.2346(a)(5), beginning no later than the compliance dates specified in §63.2342(e), the requirements in this Table 2b of this subpart apply to storage tanks at an existing affected source in lieu of the requirements in Table 2 of this subpart, item 1 for storage tanks at an existing affected source. As stated in §63.2346(a)(6), if you choose to meet the fenceline monitoring requirements specified in §63.2348, then you may continue to comply with the requirements in Table 2 of this subpart, item 1 for storage tanks at an existing affected source instead of the requirements in this Table 2b of this subpart.

If you own or operate . . .	And if . . .	Then you must . . .
1. A storage tank at an existing affected source with a capacity \geq 18.9 cubic	a. The stored organic liquid is not crude oil or condensate and if the annual average true vapor pressure of the total	ii. Reduce emissions of total organic HAP (or, upon approval, TOC) by at least 95 weight-percent or, as an option, to an exhaust concentration less than or equal to

If you own or operate . . .	And if . . .	Then you must . . .
meters (5,000 gallons) and <75.7 cubic meters (20,000 gallons).	Table 1 organic HAP in the stored organic liquid is ≥ 27.6 kilopascals (4.0 psia).	20 ppmv, on a dry basis corrected to 3 percent oxygen for combustion devices using supplemental combustion air, by venting emissions through a closed vent system to a flare meeting the requirements of §63.983 and §63.2380, or by venting emissions through a closed vent system to any combination of nonflare control devices meeting the applicable requirements of 40 CFR part 63, subpart SS and §63.2346(m); OR
		ii. Comply with the work practice standards specified in Table 4 to this subpart, items 1.a, 1.b, or 1.c for tanks storing liquids described in that table.
	b. The stored organic liquid is crude oil or condensate.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
2. A storage tank at an existing affected source with a capacity ≥ 75.7 cubic meters (20,000 gallons) and <151.4 cubic meters (40,000 gallons).	a. The stored organic liquid is not crude oil or condensate and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥ 13.1 kilopascals (1.9 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil or condensate.	i. See the requirement in item 1.a.i or 1.a.ii of this table.
3. A storage tank at an existing affected source with a capacity ≥ 151.4 cubic meters (40,000 gallons) and <189.3 cubic meters (50,000 gallons).	a. The stored organic liquid is not crude oil or condensate and if the annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid is ≥ 5.2 kilopascals (0.75 psia).	i. See the requirement in item 1.a.i or 1.a.ii of this table.
	b. The stored organic liquid is crude oil or condensate.	i. See the requirement in item 1.a.i or 1.a.ii of this table.

25. Table 3 to subpart EEEE of Part 63 is revised to read as follows:

Table 3 to Subpart EEEE of Part 63—Operating Limits—High Throughput Transfer

Racks

As stated in §63.2346(e), you must comply with the operating limits for existing, reconstructed, or new affected sources as follows:

For each existing, each reconstructed, and each new affected source using . . .	You must . . .
1. A thermal oxidizer to comply with an emission limit in Table 2 to this subpart	Maintain the daily average fire box or combustion zone temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
2. A catalytic oxidizer to comply with an emission limit in Table 2 to this subpart	a. Replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	b. Maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	c. Maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.
3. An absorber to comply with an emission limit in Table 2 to this subpart	a. Maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR
	b. Maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	Maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the

For each existing, each reconstructed, and each new affected source using . . .	You must . . .
	difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.
4. A condenser to comply with an emission limit in Table 2 to this subpart	a. Maintain the daily average concentration level of organic compounds at the condenser exit less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR
	b. Maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
5. An adsorption system with adsorbent regeneration to comply with an emission limit in Table 2 to this subpart	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR
	b. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	Before the adsorption cycle commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	Achieve a pressure reduction during each adsorption bed regeneration cycle greater than or equal to the pressure reduction established during the design evaluation or performance test that demonstrated compliance with the emission limit.
6. An adsorption system without adsorbent regeneration to comply with an emission limit in Table 2 to this subpart	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR
	b. Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications

For each existing, each reconstructed, and each new affected source using . . .	You must . . .
	established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND
	Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.
7. A flare to comply with an emission limit in Table 2 to this subpart	a. Except as specified in item 7.d of this table, comply with the equipment and operating requirements in §63.987(a); AND b. Except as specified in item 7.d of this table, conduct an initial flare compliance assessment in accordance with §63.987(b); AND
	c. Except as specified in item 7.d of this table, install and operate monitoring equipment as specified in §63.987(c).
	d. Beginning no later than the compliance dates specified in §63.2342(e), comply with the requirements in §63.2380 instead of the requirements in §63.987 and the provisions regarding flare compliance assessments at §63.997(a), (b), and (c).
8. Another type of control device to comply with an emission limit in Table 2 to this subpart	Submit a monitoring plan as specified in §§63.995(c) and 63.2366(b), and monitor the control device in accordance with that plan.

26. Table 4 to subpart EEEE of Part 63 is revised to read as follows:

Table 4 to Subpart EEEE of Part 63—Work Practice Standards

As stated in §63.2346, you may elect to comply with one of the work practice standards for existing, reconstructed, or new affected sources in the following table. If you elect to do so, . . .

For each . . .	You must . . .
1. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5 or Table 2b to this subpart, items 1 through 3	a. Comply with the requirements of 40 CFR part 63, subpart WW (control level 2), if you elect to meet 40 CFR part 63, subpart WW (control level 2) requirements as an alternative to the emission limit in Table 2 to this subpart, items 1 through 5 or the emission limit in Table 2b to this subpart, items 1 through 3; OR
	b. Comply with the requirements in §§63.2346(m) and 63.984 for routing emissions to a fuel gas system or back to a process; OR
	c. Comply with the requirements of §63.2346(a)(4) for vapor balancing emissions to the transport vehicle from which the storage tank is filled.
2. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and organic HAP vapor pressure criteria specified in Table 2 to this subpart, item 6	a. Comply with the requirements in §§63.2346(m) and 63.984 for routing emissions to a fuel gas system or back to a process; OR b. Comply with the requirements of §63.2346(a)(4) for vapor balancing emissions to the transport vehicle from which the storage tank is filled.
3. Transfer rack subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source	a. If the option of a vapor balancing system is selected, install and, during the loading of organic liquids, operate a system that meets the requirements in Table 7 to this subpart, item 3.b.i and item 3.b.ii, as applicable; OR
	b. Comply with the requirements in §§63.2346(m) and 63.984 during the loading of organic liquids, for routing emissions to a fuel gas system or back to a process.
4. Pump, valve, and sampling connection that operates in organic liquids service at least 300 hours per year at an existing,	Comply with §63.2346(m) and the requirements for pumps, valves, and sampling connections in 40 CFR part 63, subpart TT (control level 1), subpart UU

For each . . .	You must . . .
reconstructed, or new affected source	(control level 2), or subpart H.
5. Transport vehicles equipped with vapor collection equipment that are loaded at transfer racks that are subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10	Follow the steps in 40 CFR 60.502(e) to ensure that organic liquids are loaded only into vapor-tight transport vehicles, and comply with the provisions in 40 CFR 60.502(f), (g), (h), and (i), except substitute the term transport vehicle at each occurrence of tank truck or gasoline tank truck in those paragraphs.
6. Transport vehicles equipped without vapor collection equipment that are loaded at transfer racks that are subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10	Ensure that organic liquids are loaded only into transport vehicles that have a current certification in accordance with the U.S. DOT qualification and maintenance requirements in 49 CFR part 180, subpart E for cargo tanks and subpart F for tank cars.
7. Connector that operates in organic liquids service at least 300 hours per year at an existing, reconstructed, or new affected source	Beginning no later than the compliance dates specified in §63.2342(e), comply with §63.2346(m) and the requirements for connectors in 40 CFR part 63, subpart UU (control level 2), or subpart H. ⁽¹⁾

⁽¹⁾ If you choose to meet the fenceline monitoring requirements specified in §63.2348, then you are not required to comply with item 7 of this table.

27. Table 5 to subpart EEEE of Part 63 is revised to read as follows:

Table 5 to Subpart EEEE of Part 63—Requirements for Performance Tests and Design

Evaluations

As stated in §§63.2354(a) and 63.2362, you must comply with the requirements for performance tests and design evaluations for existing, reconstructed, or new affected sources as follows:

For . . .	You must conduct . . .	According to . . .	Using . . .	To determine . . .	According to the following requirements . . .
1. Each existing, each reconstructed, and each new affected source using a nonflare control device to comply with an emission limit in Table 2 to this subpart, items 1 through 10, and each existing affected source using a nonflare control device to comply with an emission limit in Table 2b to this subpart, items 1 through 3.	a. A performance test to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, OR the exhaust concentration of each combustion device; OR	i. §63.985(b)(1)(ii), §63.988(b), §63.990(b), or §63.995(b)	(1) Method 1 or 1A in appendix A-1 of 40 CFR part 60, as appropriate	(A) Sampling port locations and the required number of traverse points	(i) Sampling sites must be located at the inlet and outlet of each control device if complying with the control efficiency requirement or at the outlet of the control device if complying with the exhaust concentration requirement; AND (ii) the outlet sampling site must be located at each control device prior to any releases to the atmosphere.
			(2) Method 2, 2A, 2C, 2D, or 2F in appendix	(A) Stack gas velocity and volumetric	See the requirements in items

For . . .	You must conduct . . .	According to . . .	Using . . .	To determine . . .	According to the following requirements . . .
			A-1 of 40 CFR part 60, or Method 2G in appendix A-2 of 40 CFR part 60, as appropriate	flow rate	1.a.i.(1)(A)(i) and (ii) of this table.
			(3) Method 3A or 3B in appendix A-2 of 40 CFR part 60, as appropriate ¹	(A) Concentration of CO ₂ and O ₂ and dry molecular weight of the stack gas	See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.
			(4) Method 4 in appendix A-3 of 40 CFR part 60	(A) Moisture content of the stack gas	See the requirements in items 1.a.i.(1)(A)(i) and (ii) of this table.
			(5) Method 25 or 25A in appendix A-7 of 40 CFR part 60, as appropriate. Method 316, Method 320 ⁴ , or Method 323 in appendix A of 40 CFR part 63 if you must measure formaldehyde. You may not use Methods 320 ^{2,4} or 323 for formaldehyde if	(A) TOC and formaldehyde emissions, from any control device	(i) The organic HAP used for the calibration gas for Method 25A in appendix A-7 of 40 CFR part 60 must be the single organic HAP representing the largest percent by volume of emissions; AND (ii) During the performance test, you must establish the

For . . .	You must conduct . . .	According to . . .	Using . . .	To determine . . .	According to the following requirements . . .
			the gas stream contains entrained water droplets.		operating parameter limits within which TOC emissions are reduced by the required weight-percent or, as an option for nonflare combustion devices, to 20 ppmv exhaust concentration.
			(6) Method 18 ³ in appendix A-6 of 40 CFR part 60 or Method 320 ^{2,4} in appendix A of 40 CFR part 63, as appropriate. Method 316, Method 320 ^{2,4} , or Method 323 in appendix A of 40 CFR part 63 for measuring formaldehyde. You may not use Methods 320 or 323 if the gas stream contains entrained water droplets.	(A) Total organic HAP and formaldehyde emissions, from non-combustion control devices	(i) During the performance test, you must establish the operating parameter limits within which total organic HAP emissions are reduced by the required weight-percent.
	b. A design evaluation (for	§63.985(b)(1)(i)			During a design evaluation, you

For . . .	You must conduct . . .	According to . . .	Using . . .	To determine . . .	According to the following requirements . . .
	nonflare control devices) to determine the organic HAP (or, upon approval, TOC) control efficiency of each nonflare control device, or the exhaust concentration of each combustion control device				must establish the operating parameter limits within which total organic HAP, (or, upon approval, TOC) emissions are reduced by at least 95 weight-percent for storage tanks or 98 weight-percent for transfer racks, or, as an option for nonflare combustion devices, to 20 ppmv exhaust concentration.
2. Each transport vehicle that you own that is equipped with vapor collection equipment and is loaded with organic liquids at a transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7	A performance test to determine the vapor tightness of the tank and then repair as needed until it passes the test.		Method 27 in appendix A of 40 CFR part 60	Vapor tightness	The pressure change in the tank must be no more than 250 pascals (1 inch of water) in 5 minutes after it is pressurized to 4,500 pascals (18 inches of water).

For . . .	You must conduct . . .	According to . . .	Using . . .	To determine . . .	According to the following requirements . . .
through 10, at an existing, reconstructed, or new affected source					

¹ The manual method in ANSI/ASME PTC 19.10-1981 (Part 10) (incorporated by reference, see §63.14) may be used instead of Method 3B in appendix A-2 of 40 CFR part 60 to determine oxygen concentration.

² All compounds quantified by Method 320 in appendix A to this part must be validated according to Section 13.0 of Method 320.

³ ASTM D6420-18 (incorporated by reference, see §63.14) may be used instead of Method 18 in appendix A-6 of 40 CFR part 60 to determine total HAP emissions, but if you use ASTM D6420-18, you must use it under the conditions specified in §63.2354(b)(3)(ii).

⁴ ASTM D6348-12e1, (incorporated by reference, see §63.14) may be used instead of Method 320 of appendix A to this part under the following conditions: the test plan preparation and implementation in the Annexes to ASTM D 6348-12e1, Sections A1 through A8 are mandatory; the percent (%) R must be determined for each target analyte (Equation A5.5); %R must be 70 % \leq R \leq 130%; if the %R value does not meet this criterion for a target compound, then the test data is not acceptable for that compound and the test must be repeated for that analyte (*i.e.*, the sampling and/or analytical procedure should be adjusted before a retest); and the %R value for each compound must be reported in the test report and all field measurements must be corrected with the calculated %R value for that compound by using the following equation:
Reported Results = ((Measured Concentration in Stack))/(%R) x 100

28. Table 6 to subpart EEEE of Part 63 is amended by revising the rows for items 1 and 2 to read as follows:

Table 6 to Subpart EEEE of Part 63—Initial Compliance With Emission Limits

As stated in §§63.2370(a) and 63.2382(b), you must show initial compliance with the emission limits for existing, reconstructed, or new affected sources as follows:

For each . . .	For the following emission limit . . .	You have demonstrated initial compliance if . . .
1. Storage tank at an existing, reconstructed, or new affected	Reduce total organic HAP (or, upon approval, TOC)	Total organic HAP (or, upon approval, TOC) emissions, based on

source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6, or Table 2b to this subpart, items 1 through 3	emissions by at least 95 weight-percent, or as an option for nonflare combustion devices to an exhaust concentration of ≤ 20 ppmv	the results of the performance testing or design evaluation specified in Table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 95 weight-percent or as an option for nonflare combustion devices to an exhaust concentration ≤ 20 ppmv.
2. Transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source	Reduce total organic HAP (or, upon approval, TOC) emissions from the loading of organic liquids by at least 98 weight-percent, or as an option for nonflare combustion devices to an exhaust concentration of ≤ 20 ppmv	Total organic HAP (or, upon approval, TOC) emissions from the loading of organic liquids, based on the results of the performance testing or design evaluation specified in Table 5 to this subpart, item 1.a or 1.b, respectively, are reduced by at least 98 weight-percent or as an option for nonflare combustion devices to an exhaust concentration of ≤ 20 ppmv.

29. Table 7 to subpart EEEE of Part 63 is amended by revising the rows for items 1, 3, and 4 to read as follows:

Table 7 to Subpart EEEE of Part 63—Initial Compliance With Work Practice Standards

For each . . .	If you . . .	You have demonstrated initial compliance if . . .
1. Storage tank at an existing affected source meeting either set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 or 2, or Table 2b to this subpart, items 1 through 3	a. Install a floating roof or equivalent control that meets the requirements in Table 4 to this subpart, item 1.a	i. After emptying and degassing, you visually inspect each internal floating roof before the refilling of the storage tank and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the refilling of the storage tank.
	b. Route emissions to a fuel gas system or back to a process	i. You meet the requirements in §63.984(b) and submit the statement of connection required by §63.984(c).
	c. Install and, during the filling of the storage tank with organic	i. You meet the requirements in §63.2346(a)(4).

For each . . .	If you . . .	You have demonstrated initial compliance if . . .
	liquids, operate a vapor balancing system	
2. Storage tank at a reconstructed or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 3 through 5	a. Install a floating roof or equivalent control that meets the requirements in Table 4 to this subpart, item 1.a	i. You visually inspect each internal floating roof before the initial filling of the storage tank, and perform seal gap inspections of the primary and secondary rim seals of each external floating roof within 90 days after the initial filling of the storage tank.
	b. Route emissions to a fuel gas system or back to a process	i. See item 1.b.i of this table.
	c. Install and, during the filling of the storage tank with organic liquids, operate a vapor balancing system	i. See item 1.c.i of this table.
3. Transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source	a. Load organic liquids only into transport vehicles having current vapor tightness certification as described in Table 4 to this subpart, item 5 and item 6	i. You comply with the provisions specified in Table 4 to this subpart, item 5 or item 6, as applicable.
	b. Install and, during the loading of organic liquids, operate a vapor balancing system	i. You design and operate the vapor balancing system to route organic HAP vapors displaced from loading of organic liquids into transport vehicles to the storage tank from which the liquid being loaded originated or to another storage tank connected to a common header. ii. You design and operate the vapor balancing system to route organic HAP vapors displaced from loading of organic liquids into containers directly (<i>e.g.</i> , no intervening tank or containment area such as a room) to the storage tank from which the liquid being loaded originated or to another storage tank connected to a

For each . . .	If you . . .	You have demonstrated initial compliance if . . .
		common header.
	c. Route emissions to a fuel gas system or back to a process	i. See item 1.b.i of this table.
4. Equipment leak component, as defined in §63.2406, that operates in organic liquids service ≥300 hours per year at an existing, reconstructed, or new affected source	a. Carry out a leak detection and repair program or equivalent control according to one of the subparts listed in Table 4 to this subpart, item 4 and item 7	i. You specify which one of the control programs listed in Table 4 to this subpart you have selected, OR ii. Provide written specifications for your equivalent control approach.

30. Table 8 to subpart EEEE of Part 63 is revised to read as follows:

Table 8 to Subpart EEEE of Part 63—Continuous Compliance With Emission Limits

As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the emission limits for existing, reconstructed, or new affected sources according to the following table:

For each . . .	For the following emission limit . . .	You must demonstrate continuous compliance by . . .
1. Storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and liquid organic HAP vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6 or Table 2b to this subpart, items 1 through 3	a. Reduce total organic HAP (or, upon approval, TOC) emissions from the closed vent system and control device by 95 weight-percent or greater, or as an option to 20 ppmv or less of total organic HAP (or, upon approval, TOC) in the exhaust of combustion devices	i. Performing CMS monitoring and collecting data according to §§63.2366, 63.2374, and 63.2378, except as specified in item 1.a.iii of this table; AND ii. Maintaining the operating limits established during the design evaluation or performance test that demonstrated compliance with the emission limit. iii. Beginning no later than the compliance dates specified in §63.2342(e), if

		you use a flare, you must demonstrate continuous compliance by performing CMS monitoring and collecting data according to requirements in §63.2380.
2. Transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source	a. Reduce total organic HAP (or, upon approval, TOC) emissions during the loading of organic liquids from the closed vent system and control device by 98 weight-percent or greater, or as an option to 20 ppmv or less of total organic HAP (or, upon approval, TOC) in the exhaust of combustion devices	i. Performing CMS monitoring and collecting data according to §§63.2366, 63.2374, and 63.2378 during the loading of organic liquids, except as specified in item 2.a.iii of this table; AND ii. Maintaining the operating limits established during the design evaluation or performance test that demonstrated compliance with the emission limit during the loading of organic liquids. iii. Beginning no later than the compliance dates specified in §63.2342(e), if you use a flare, you must demonstrate continuous compliance by performing CMS monitoring and collecting data according to requirements in §63.2380.

31. Table 9 to subpart EEEE of Part 63 is revised to read as follows:

**Table 9 to Subpart EEEE of Part 63—Continuous Compliance With Operating Limits—
High Throughput Transfer Racks**

As stated in §§63.2378(a) and (b) and 63.2390(b), you must show continuous compliance with the operating limits for existing, reconstructed, or new affected sources according to the following table:

For each existing, reconstructed, and each new affected source using . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
1. A thermal oxidizer to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average fire box or combustion zone, as applicable, temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring and recording fire box or combustion zone, as applicable, temperature every 15 minutes and maintaining the daily average fire box temperature greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
2. A catalytic oxidizer to comply with an emission limit in Table 2 to this subpart.	a. Replace the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND	i. Replacing the existing catalyst bed before the age of the bed exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
	b. Maintain the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND	i. Continuously monitoring and recording the temperature at the inlet of the catalyst bed at least every 15 minutes and maintaining the daily average temperature at the inlet of the catalyst bed greater than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
	c. Maintain the daily average temperature difference across the catalyst bed greater than or equal to the minimum temperature difference established during the design evaluation or performance	i. Continuously monitoring and recording the temperature at the outlet of the catalyst bed every 15 minutes and maintaining the daily average temperature difference across the catalyst bed greater than or equal

For each existing, reconstructed, and each new affected source using . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
	test that demonstrated compliance with the emission limit.	to the minimum temperature difference established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
3. An absorber to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds in the absorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	i. Continuously monitoring the organic concentration in the absorber exhaust and maintaining the daily average concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
	b. Maintain the daily average scrubbing liquid temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND Maintain the difference between the specific gravities of the saturated and fresh scrubbing fluids greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring the scrubbing liquid temperature and maintaining the daily average temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Maintaining the difference between the specific gravities greater than or equal to the difference established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND iii. Keeping the applicable records required in §63.998. ⁽¹⁾
4. A condenser to comply with an emission limit in Table 2 to this	a. Maintain the daily average concentration level of organic compounds at the exit of the condenser less than or equal to the	i. Continuously monitoring the organic concentration at the condenser exit and maintaining the daily average concentration less than

For each existing, reconstructed, and each new affected source using . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
subpart.	reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
	b. Maintain the daily average condenser exit temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.	i. Continuously monitoring and recording the temperature at the exit of the condenser at least every 15 minutes and maintaining the daily average temperature less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
5. An adsorption system with adsorbent regeneration to comply with an emission limit in Table 2 to this subpart.	a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR	i. Continuously monitoring the daily average organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
	b. Maintain the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND Before the adsorption cycle	i. Maintaining the total regeneration stream mass flow during the adsorption bed regeneration cycle greater than or equal to the reference stream mass flow established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND ii. Maintaining the temperature of the adsorption bed after regeneration less

For each existing, reconstructed, and each new affected source using . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
	<p>commences, achieve and maintain the temperature of the adsorption bed after regeneration less than or equal to the reference temperature established during the design evaluation or performance test; AND</p> <p>Achieve greater than or equal to the pressure reduction during the adsorption bed regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit.</p>	<p>than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</p> <p>iii. Achieving greater than or equal to the pressure reduction during the regeneration cycle established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</p> <p>iv. Keeping the applicable records required in §63.998.⁽¹⁾</p>
<p>6. An adsorption system without adsorbent regeneration to comply with an emission limit in Table 2 to this subpart.</p>	<p>a. Maintain the daily average concentration level of organic compounds in the adsorber exhaust less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; OR</p>	<p>i. Continuously monitoring the organic concentration in the adsorber exhaust and maintaining the concentration less than or equal to the reference concentration established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</p> <p>ii. Keeping the applicable records required in §63.998.⁽¹⁾</p>
	<p>b. Replace the existing adsorbent in each segment of the bed before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</p> <p>Maintain the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or performance test that demonstrated compliance with the emission limit.</p>	<p>i. Replacing the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation or performance test before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation or performance test that demonstrated compliance with the emission limit; AND</p> <p>ii. Maintaining the temperature of the adsorption bed less than or equal to the reference temperature established during the design evaluation or</p>

For each existing, reconstructed, and each new affected source using . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
		performance test that demonstrated compliance with the emission limit; AND iii. Keeping the applicable records required in §63.998. ⁽¹⁾
7. A flare to comply with an emission limit in Table 2 to this subpart.	a. Except as specified in item 7.e of this table, maintain a pilot flame in the flare at all times that vapors may be vented to the flare (§63.11(b)(5)); AND	i. Continuously operating a device that detects the presence of the pilot flame; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
	b. Except as specified in item 7.e of this table, maintain a flare flame at all times that vapors are being vented to the flare (§63.11(b)(5)); AND	i. Maintaining a flare flame at all times that vapors are being vented to the flare; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
	c. Except as specified in item 7.e of this table, operate the flare with no visible emissions, except for up to 5 minutes in any 2 consecutive hours (§63.11(b)(4)); AND EITHER	i. Operating the flare with no visible emissions exceeding the amount allowed; AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
	d.1. Except as specified in item 7.e of this table, operate the flare with an exit velocity that is within the applicable limits in §63.11(b)(7) and (8) and with a net heating value of the gas being combusted greater than the applicable minimum value in §63.11(b)(6)(ii); OR	i. Operating the flare within the applicable exit velocity limits; AND ii. Operating the flare with the gas heating value greater than the applicable minimum value; AND iii. Keeping the applicable records required in §63.998. ⁽¹⁾
	d.2. Except as specified in item 7.e of this table, adhere to the requirements in §63.11(b)(6)(i).	i. Operating the flare within the applicable limits in §63.11(b)(6)(i); AND ii. Keeping the applicable records required in §63.998. ⁽¹⁾
	e. Beginning no later than the compliance dates specified in §63.2342(e), comply with the	i. Operating the flare with the applicable limits in §63.2380; AND ii. Keeping the applicable records

For each existing, reconstructed, and each new affected source using . . .	For the following operating limit . . .	You must demonstrate continuous compliance by . . .
	requirements in §63.2380 instead of the requirements in §63.11(b).	required in §63.2390(h).
8. Another type of control device to comply with an emission limit in Table 2 to this subpart.	Submit a monitoring plan as specified in §§63.995(c) and 63.2366(b), and monitor the control device in accordance with that plan.	Submitting a monitoring plan and monitoring the control device according to that plan.

⁽¹⁾ Beginning no later than the compliance dates specified in §63.2342(e), the referenced provisions specified in §63.2346(m) do not apply.

32. Table 10 to subpart EEEE of Part 63 is revised to read as follows:

Table 10 to Subpart EEEE of Part 63—Continuous Compliance With Work Practice

Standards

As stated in §§63.2378(a) and (b) and 63.2386(c)(6), you must show continuous compliance with the work practice standards for existing, reconstructed, or new affected sources according to the following table:

For each . . .	For the following standard . . .	You must demonstrate continuous compliance by . . .
1. Internal floating roof (IFR) storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity, and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5, or Table 2b to this subpart, items 1 through 3.	a. Install a floating roof designed and operated according to the applicable specifications in §63.1063(a) and (b).	i. Visually inspecting the floating roof deck, deck fittings, and rim seals of each IFR once per year (§63.1063(d)(2)); AND ii. Visually inspecting the floating roof deck, deck fittings, and rim seals of each IFR either each time the storage tank is completely emptied and degassed or every 10 years, whichever occurs first (§63.1063(c)(1), (d)(1), and (e)); AND iii. Keeping the tank records required in §63.1065.
2. External floating roof	a. Install a floating roof	i. Visually inspecting the floating roof

For each . . .	For the following standard . . .	You must demonstrate continuous compliance by . . .
(EFR) storage tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5, or Table 2b to this subpart, items 1 through 3.	designed and operated according to the applicable specifications in §63.1063(a) and (b).	deck, deck fittings, and rim seals of each EFR either each time the storage tank is completely emptied and degassed or every 10 years, whichever occurs first (§63.1063(c)(2), (d), and (e)); AND ii. Performing seal gap measurements on the secondary seal of each EFR at least once every year, and on the primary seal of each EFR at least every 5 years (§63.1063(c)(2), (d), and (e)); AND iii. Keeping the tank records required in §63.1065.
3. IFR or EFR tank at an existing, reconstructed, or new affected source meeting any set of tank capacity and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 5, or Table 2b to this subpart, items 1 through 3.	a. Repair the conditions causing storage tank inspection failures (§63.1063(e)).	i. Repairing conditions causing inspection failures: before refilling the storage tank with organic liquid, or within 45 days (or up to 105 days with extensions) for a tank containing organic liquid; AND ii. Keeping the tank records required in §63.1065(b).
4. Transfer rack that is subject to control based on the criteria specified in Table 2 to this subpart, items 7 through 10, at an existing, reconstructed, or new affected source.	a. Ensure that organic liquids are loaded into transport vehicles in accordance with the requirements in Table 4 to this subpart, items 5 or 6, as applicable.	i. Ensuring that organic liquids are loaded into transport vehicles in accordance with the requirements in Table 4 to this subpart, items 5 or 6, as applicable.
	b. Install and, during the loading of organic liquids, operate a vapor balancing system.	i. Monitoring each potential source of vapor leakage in the system quarterly during the loading of a transport vehicle or the filling of a container using the methods and procedures described in the rule requirements selected for the work practice standard for equipment leak components as specified in Table 4 to this subpart, item 4 and item 7. An instrument reading of 500 ppmv defines a leak. Repair of leaks is performed

For each . . .	For the following standard . . .	You must demonstrate continuous compliance by . . .
		according to the repair requirements specified in your selected equipment leak standards.
	c. Route emissions to a fuel gas system or back to a process.	i. Continuing to meet the requirements specified in §63.984(b).
5. Equipment leak component, as defined in §63.2406, that operates in organic liquids service at least 300 hours per year.	a. For equipment leak components other than connectors, comply with §63.2346(m) and the requirements of 40 CFR part 63, subpart TT, UU, or H.	i. Carrying out a leak detection and repair program in accordance with the subpart selected from the list in item 5.a of this table.
	b. In addition to item 5.a of this table, beginning no later than the compliance dates specified in §63.2342(e), comply with §63.2346(m) and the requirements for connectors in 40 CFR part 63, subpart UU or H. ⁽¹⁾	i. Carrying out a leak detection and repair program in accordance with the subpart selected from the list in item 5.b of this table.
6. Storage tank at an existing, reconstructed, or new affected source meeting any of the tank capacity and vapor pressure criteria specified in Table 2 to this subpart, items 1 through 6, or Table 2b to this subpart, items 1 through 3.	a. Route emissions to a fuel gas system or back to the process.	i. Continuing to meet the requirements specified in §63.984(b).
	b. Install and, during the filling of the storage tank with organic liquids, operate a vapor balancing system.	i. Except for pressure relief devices, monitoring each potential source of vapor leakage in the system, including, but not limited to connectors, pumps, valves, and sampling connections, quarterly during the loading of a storage tank using the methods and procedures described in the rule requirements selected for the work practice standard

For each . . .	For the following standard . . .	You must demonstrate continuous compliance by . . .
		for equipment leak components as specified in Table 4 to this subpart, item 4 and item 7. An instrument reading of 500 ppmv defines a leak. Repair of leaks is performed according to the repair requirements specified in your selected equipment leak standards. For pressure relief devices, comply with §63.2346(a)(4)(v). If no loading of a storage tank occurs during a quarter, then monitoring of the vapor balancing system is not required.

⁽¹⁾ If you choose to meet the fenceline monitoring requirements specified in §63.2348, then you do not need to comply with item 5.b of this table.

33. Table 11 to subpart EEEE of Part 63 is revised to read as follows:

Table 11 to Subpart EEEE of Part 63—Requirements for Reports

As stated in §63.2386(a), (b), and (f), you must submit compliance reports and startup, shutdown, and malfunction reports according to the following table:

You must submit a(n) . . .	The report must contain . . .	You must submit the report . . .
1. Compliance report or Periodic Report	a. The information specified in §63.2386(c), (d), (e). If you had a SSM during the reporting period and you took actions consistent with your SSM plan, the report must also include the information in §63.10(d)(5)(i) except as specified in item 1.e of this table; AND	Semiannually, and it must be postmarked or electronically submitted by January 31 or July 31, in accordance with §63.2386(b).
	b. The information required by 40 CFR part 63, subpart TT, UU, or H, as applicable, for connectors, pumps, valves, and sampling connections; AND	See the submission requirement in item 1.a of this table.
	c. The information required by §63.999(c); AND	See the submission requirement in item 1.a of this table.

	d. The information specified in §63.1066(b) including: Notification of inspection, inspection results, requests for alternate devices, and requests for extensions, as applicable.	See the submission requirement in item 1.a of this table.
	e. Beginning no later than the compliance dates specified in §63.2342(e), the requirement to include the information in §63.10(d)(5)(i) no longer applies.	
2. Immediate SSM report if you had a SSM that resulted in an applicable emission standard in the relevant standard being exceeded, and you took an action that was not consistent with your SSM plan	a. The information required in §63.10(d)(5)(ii)	i. Except as specified in item 2.a.ii of this table, by letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority (§63.10(d)(5)(ii)). ii. Beginning no later than the compliance dates specified in §63.2342(e), item 2.a.i of this table no longer applies.

34. Table 12 to subpart EEEE of Part 63 is revised to read as follows:

Table 12 to Subpart EEEE of Part 63—Applicability of General Provisions to Subpart EEEE

As stated in §§63.2382 and 63.2398, you must comply with the applicable General Provisions requirements as follows:

Citation	Subject	Brief description	Applies to subpart EEEE
§63.1	Applicability	Initial applicability determination; Applicability after standard established; Permit requirements; Extensions, Notifications	Yes.
§63.2	Definitions	Definitions for part 63 standards	Yes.
§63.3	Units and Abbreviations	Units and abbreviations for	Yes.

Citation	Subject	Brief description	Applies to subpart EEEE
		part 63 standards	
§63.4	Prohibited Activities and Circumvention	Prohibited activities; Circumvention, Severability	Yes.
§63.5	Construction/Reconstruction	Applicability; Applications; Approvals	Yes.
§63.6(a)	Compliance with Standards/O&M Applicability	GP apply unless compliance extension; GP apply to area sources that become major	Yes.
§63.6(b)(1)-(4)	Compliance Dates for New and Reconstructed Sources	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for CAA section 112(f)	Yes.
§63.6(b)(5)	Notification	Must notify if commenced construction or reconstruction after proposal	Yes.
§63.6(b)(6)	[Reserved].		
§63.6(b)(7)	Compliance Dates for New and Reconstructed Area Sources That Become Major	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source	Yes.
§63.6(c)(1)-(2)	Compliance Dates for Existing Sources	Comply according to date in this subpart, which must be no later than 3 years after effective date; for CAA section 112(f) standards, comply within 90 days of effective date unless compliance extension	Yes.
§63.6(c)(3)-	[Reserved].		

Citation	Subject	Brief description	Applies to subpart EEEE
(4)			
§63.6(c)(5)	Compliance Dates for Existing Area Sources That Become Major	Area sources that become major must comply with major source standards by date indicated in this subpart or by equivalent time period (<i>e.g.</i> , 3 years)	Yes.
§63.6(d)	[Reserved].		
§63.6(e)(1)(i)	Operation & Maintenance	Operate to minimize emissions at all times	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] . See §63.2350(d) for general duty requirement.
§63.6(e)(1)(ii)	Operation & Maintenance	Correct malfunctions as soon as practicable	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] .
§63.6(e)(1)(iii)	Operation & Maintenance	Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met	Yes.
§63.6(e)(2)	[Reserved].		
§63.6(e)(3)	SSM Plan	Requirement for SSM plan; content of SSM plan; actions during SSM	Yes, before [date 3 years after date of publication of final rule in the Federal Register] ; however, (1) the 2-day

Citation	Subject	Brief description	Applies to subpart EEEE
			reporting requirement in paragraph §63.6(e)(3)(iv) does not apply and (2) §63.6(e)(3) does not apply to emissions sources not requiring control. No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] .
§63.6(f)(1)	Compliance Except During SSM	You must comply with emission standards at all times except during SSM	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] .
§63.6(f)(2)-(3)	Methods for Determining Compliance	Compliance based on performance test, operation and maintenance plans, records, inspection	Yes.
§63.6(g)(1)-(3)	Alternative Standard	Procedures for getting an alternative standard	Yes.
§63.6(h)(1)	Opacity/Visible Emission Standards	You must comply with opacity and visible emission standards at all times except during SSM	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] .
§63.6(h)(2)-(9)	Opacity/Visible Emission Standards	Requirements for compliance with opacity and visible emission standards	No; except as it applies to flares for which Method 22 observations are required as part of a flare compliance assessment.
§63.6(i)(1)-	Compliance Extension	Procedures and criteria for	Yes.

Citation	Subject	Brief description	Applies to subpart EEEE
(14)		Administrator to grant compliance extension	
§63.6(j)	Presidential Compliance Exemption	President may exempt any source from requirement to comply with this subpart	Yes.
§63.7(a)(2)	Performance Test Dates	Dates for conducting initial performance testing; must conduct 180 days after compliance date	Yes.
§63.7(a)(3)	Section 114 Authority	Administrator may require a performance test under CAA section 114 at any time	Yes.
§63.7(b)(1)	Notification of Performance Test	Must notify Administrator 60 days before the test	Yes.
§63.7(b)(2)	Notification of Rescheduling	If you have to reschedule performance test, must notify Administrator of rescheduled date as soon as practicable and without delay	Yes.
§63.7(c)	Quality Assurance (QA)/Test Plan	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with; test plan approval procedures; performance audit requirements; internal and external QA procedures for testing	Yes.
§63.7(d)	Testing Facilities	Requirements for testing facilities	Yes.
§63.7(e)(1)	Conditions for Conducting Performance Tests	Performance tests must be conducted under representative conditions; cannot conduct performance tests during SSM	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in

Citation	Subject	Brief description	Applies to subpart EEEE
			the Federal Register]. See §63.2354(b)(6).
§63.7(e)(2)	Conditions for Conducting Performance Tests	Must conduct according to this subpart and EPA test methods unless Administrator approves alternative	Yes.
§63.7(e)(3)	Test Run Duration	Must have three test runs of at least 1 hour each; compliance is based on arithmetic mean of three runs; conditions when data from an additional test run can be used	Yes; however, for transfer racks per §§63.987(b)(3)(i)(A)-(B) and 63.997(e)(1)(v)(A)-(B) provide exceptions to the requirement for test runs to be at least 1 hour each.
§63.7(e)(4)	Authority to Require Testing	Administrator has authority to require testing under CAA section 114 regardless of §63.7 (e)(1)-(3)	Yes.
§63.7(f)	Alternative Test Method	Procedures by which Administrator can grant approval to use an intermediate or major change, or alternative to a test method	Yes.
§63.7(g)	Performance Test Data Analysis	Must include raw data in performance test report; must submit performance test data 60 days after end of test with the Notification of Compliance Status; keep data for 5 years	Yes, except this subpart specifies how and when the performance test and performance evaluation results are reported.
§63.7(h)	Waiver of Tests	Procedures for Administrator to waive performance test	Yes.
§63.8(a)(1)	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard	Yes.
§63.8(a)(2)	Performance Specifications	Performance Specifications in appendix B of 40 CFR	Yes.

Citation	Subject	Brief description	Applies to subpart EEEE
		part 60 apply	
§63.8(a)(3)	[Reserved].		
§63.8(a)(4)	Monitoring of Flares	Monitoring requirements for flares in §63.11	Yes, before [date 3 years after date of publication of final rule in the Federal Register] ; however, flare monitoring requirements in §63.987(c) also apply before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] . See §63.2380.
§63.8(b)(1)	Monitoring	Must conduct monitoring according to standard unless Administrator approves alternative	Yes.
§63.8(b)(2)-(3)	Multiple Effluents and Multiple Monitoring Systems	Specific requirements for installing monitoring systems; must install on each affected source or after combined with another affected source before it is released to the atmosphere provided the monitoring is sufficient to demonstrate compliance with the standard; if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup	Yes.
§63.8(c)(1)	Monitoring System Operation and Maintenance	Maintain monitoring system in a manner consistent with good air	Yes.

Citation	Subject	Brief description	Applies to subpart EEEE
		pollution control practices	
§63.8(c)(1)(i)	Routine and Predictable SSM	Keep parts for routine repairs readily available; reporting requirements for SSM when action is described in SSM plan.	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] .
§63.8(c)(1)(ii)	CMS malfunction not in SSM plan	Keep the necessary parts for routine repairs if CMS malfunctions	Yes.
§63.8(c)(1)(iii)	Compliance with Operation and Maintenance Requirements	Develop a written SSM plan for CMS	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] .
§63.8(c)(2)-(3)	Monitoring System Installation	Must install to get representative emission or parameter measurements; must verify operational status before or at performance test	Yes.
§63.8(c)(4)	CMS Requirements	CMS must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts; COMS must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period; CEMS must have a minimum of one cycle of	Yes; however, COMS are not applicable.

Citation	Subject	Brief description	Applies to subpart EEEE
		operation for each successive 15-minute period	
§63.8(c)(5)	COMS Minimum Procedures	COMS minimum procedures	No.
§63.8(c)(6)-(8)	CMS Requirements	Zero and high level calibration check requirements. Out-of-control periods	Yes, but only applies for CEMS. 40 CFR part 63, subpart SS provides requirements for CPMS.
§63.8(d)(1)-(2)	CMS Quality Control	Requirements for CMS quality control	Yes, but only applies for CEMS. 40 CFR part 63, subpart SS provides requirements for CPMS.
§63.8(d)(3)	CMS Quality Control	Must keep quality control plan on record for 5 years; keep old versions	Yes, before [date 3 years after date of publication of final rule in the Federal Register] , but only applies for CEMS. 40 CFR part 63, subpart SS provides requirements for CPMS. No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] . See §63.2366(c).
§63.8(e)	CMS Performance Evaluation	Notification, performance evaluation test plan, reports	Yes, but only applies for CEMS, except this subpart specifies how and when the performance evaluation results are reported.
§63.8(f)(1)-(5)	Alternative Monitoring Method	Procedures for Administrator to approve alternative monitoring	Yes, but 40 CFR part 63, subpart SS also provides procedures for approval of CPMS.
§63.8(f)(6)	Alternative to Relative Accuracy Test	Procedures for Administrator to approve alternative relative accuracy tests for CEMS	Yes.

Citation	Subject	Brief description	Applies to subpart EEEE
§63.8(g)	Data Reduction	COMS 6-minute averages calculated over at least 36 evenly spaced data points; CEMS 1 hour averages computed over at least 4 equally spaced data points; data that cannot be used in average	Yes; however, COMS are not applicable.
§63.9(a)	Notification Requirements	Applicability and State delegation	Yes.
§63.9(b)(1)-(2), (4)-(5)	Initial Notifications	Submit notification within 120 days after effective date; notification of intent to construct/reconstruct, notification of commencement of construction/reconstruction, notification of startup; contents of each	Yes.
§63.9(c)	Request for Compliance Extension	Can request if cannot comply by date or if installed best available control technology or lowest achievable emission rate (BACT/LAER)	Yes.
§63.9(d)	Notification of Special Compliance Requirements for New Sources	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date	Yes.
§63.9(e)	Notification of Performance Test	Notify Administrator 60 days prior	Yes.
§63.9(f)	Notification of VE/Opacity Test	Notify Administrator 30 days prior	No.
§63.9(g)	Additional Notifications When Using CMS	Notification of performance evaluation; notification about use of COMS data; notification that exceeded criterion for relative accuracy alternative	Yes; however, there are no opacity standards.

Citation	Subject	Brief description	Applies to subpart EEEE
§63.9(h)(1)-(6)	Notification of Compliance Status	Contents due 60 days after end of performance test or other compliance demonstration, except for opacity/visible emissions, which are due 30 days after; when to submit to Federal vs. State authority	Yes; however, (1) there are no opacity standards and (2) all initial Notification of Compliance Status, including all performance test data, are to be submitted at the same time, either within 240 days after the compliance date or within 60 days after the last performance test demonstrating compliance has been completed, whichever occurs first.
§63.9(i)	Adjustment of Submittal Deadlines	Procedures for Administrator to approve change in when notifications must be submitted	Yes.
§63.9(j)	Change in Previous Information	Must submit within 15 days after the change	No. These changes will be reported in the first and subsequent compliance reports.
§63.10(a)	Recordkeeping/Reporting	Applies to all, unless compliance extension; when to submit to Federal vs. State authority; procedures for owners of more than one source	Yes.
§63.10(b)(1)	Recordkeeping/Reporting	General requirements; keep all records readily available; keep for 5 years	Yes.
§63.10(b)(2)(i)	Records Related to Startup and Shutdown	Occurrence of each for operations (process equipment)	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] .

Citation	Subject	Brief description	Applies to subpart EEEE
§63.10(b)(2)(ii)	Recordkeeping Relevant to Malfunction Periods and CMS	Occurrence of each malfunction of air pollution equipment	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] . See §63.2390(f).
§63.10(b)(2)(iii)	Recordkeeping Relevant to Maintenance of Air Pollution Control and Monitoring Equipment	Maintenance on air pollution control equipment	Yes.
§63.10(b)(2)(iv)	Recordkeeping Relevant to SSM Periods and CMS	Actions during SSM	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] .
§63.10(b)(2)(v)	Recordkeeping Relevant to SSM Periods and CMS	Actions during SSM	No.
§63.10(b)(2)(vi)-(xi)	CMS Records	Malfunctions, inoperative, out-of-control periods	Yes.
§63.10(b)(2)(xii)	Records	Records when under waiver	Yes.
§63.10(b)(2)(xiii)	Records	Records when using alternative to relative accuracy test	Yes.
§63.10(b)(2)(xiv)	Records	All documentation supporting initial notification and notification of compliance status	Yes.
§63.10(b)(3)	Records	Applicability determinations	Yes.
§63.10(c)(1)	Records	Additional records for	Yes.

Citation	Subject	Brief description	Applies to subpart EEEE
-(14)		CMS	
§63.10(c)(1) (5)	Records	Additional records for CMS	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] .
§63.10(d)(1)	General Reporting Requirements	Requirement to report	Yes.
§63.10(d)(2)	Report of Performance Test Results	When to submit to Federal or State authority	No. This subpart specifies how and when the performance test results are reported.
§63.10(d)(3)	Reporting Opacity or Visible Emissions Observations	What to report and when	Yes.
§63.10(d)(4)	Progress Reports	Must submit progress reports on schedule if under compliance extension	Yes.
§63.10(d)(5)	SSM Reports	Contents and submission	Yes, before [date 3 years after date of publication of final rule in the Federal Register] . No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register] . See §63.2386(d)(1)(xiii).
§63.10(e)(1) (-2)	Additional CMS Reports	Must report results for each CEMS on a unit; written copy of CMS performance evaluation; 2-3 copies of COMS performance evaluation	Yes, except this subpart specifies how and when the performance evaluation results are reported; however, COMS are not applicable.
§63.10(e)(3) (i)-(iii)	Reports	Schedule for reporting excess emissions and	Yes; however, note that the title of the report is the

Citation	Subject	Brief description	Applies to subpart EEEE
		parameter monitor exceedance (now defined as deviations)	compliance report; deviations include excess emissions and parameter exceedances.
§63.10(e)(3)(iv)-(v)	Excess Emissions Reports	Requirement to revert to quarterly submission if there is an excess emissions or parameter monitoring exceedance (now defined as deviations); provision to request semiannual reporting after compliance for 1 year; submit report by 30th day following end of quarter or calendar half; if there has not been an exceedance or excess emissions (now defined as deviations), report contents in a statement that there have been no deviations; must submit report containing all of the information in §§63.8(c)(7)-(8) and 63.10(c)(5)-(13)	Yes.
§63.10(e)(3)(vi)-(viii)	Excess Emissions Report and Summary Report	Requirements for reporting excess emissions for CMS (now called deviations); requires all of the information in §§63.10(c)(5)-(13) and 63.8(c)(7)-(8)	No. This subpart specifies the reported information for deviations within the compliance reports.
§63.10(e)(4)	Reporting COMS Data	Must submit COMS data with performance test data	No.
§63.10(f)	Waiver for Recordkeeping/Reporting	Procedures for Administrator to waive	Yes.
§63.11(b)	Flares	Requirements for flares	Yes, before [date 3 years after date of publication of final rule in the Federal Register] ; §63.987 requirements

Citation	Subject	Brief description	Applies to subpart EEEE
			<p>apply, and the section references §63.11(b).</p> <p>No, beginning on and after [date 3 years after date of publication of final rule in the Federal Register]. See §63.2380.</p>
§63.11(c), (d), and (e)	Control and work practice requirements	Alternative work practice for equipment leaks	Yes.
§63.12	Delegation	State authority to enforce standards	Yes.
§63.13	Addresses	Addresses where reports, notifications, and requests are sent	Yes.
§63.14	Incorporation by Reference	Test methods incorporated by reference	Yes.
§63.15	Availability of Information	Public and confidential information	Yes.

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